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THE

MEDICO-CHIRURGICAL REVIEW,

AND

JOURNAL

OF

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NEW SERIES.

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1830–1831.

EDITED BY

JAMES JOHNSON, M.D.

PHYSICIAN EXTRAORDINARY TO THE KING OF GREAT BRITAIN,

&c. &c. &c.

" Nec tibi quid liceat sed quid fecisse decebit
" Occurrat mentemque domat respectus honesti."—CLAUD.

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The letter of Woridunum has been received, and we wish he knew the difficulty of pleasing all parties. We believe him right, however, in his assertion, "that six-sevenths of the country practitioners depend on the Quarterly and Monthly Journals, for a knowledge of the books that are published." And truly they have not much cause to complain—for in such vehicles they get the cream of the matter at a very small expense. Woridunum will perceive, that we often bring in short Reviews of minor works, on particular subjects, in Periscope—and that this last department is, perhaps, upon the whole, as instructive as the Review department.

Dr. Coombe's work shall be reviewed in our next.

Mr. Grierson's pamphlet, respecting the Coroner's Inquest, shall be noticed in our next Number.

The Review proposed by K—, of the work now nearly ready for publication, by C. will be acceptable, and may be undertaken forthwith on the usual terms. This notice will save a letter.

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Literary Intelligence.

Mr. Cocks who is so well known to the Medical Profession, by his drawings of *Morbid Anatomy*, is about to publish a *Scrap Book*, containing the *Morbid Anatomy* of the *Œsophagus* and *Stomach*, beautifully coloured after nature—the first part of which is nearly ready.

Also,

The Pathological Anatomy of the *Brain*, *Spinal Chord*, and their *Membranes*—illustrated by 14 plates, in a very neat pocket volume.

A Translation of Doctor Edward's Researches on the Influence of Physical Agents on Life, with Notes. By Dr. Hodgkin and Dr. Fisher. In One Volume, 8vo. is nearly ready for publication.

THE

Medico-Chirurgical Review,

No. XXVII.

OCTOBER 1, 1830, TO JANUARY 1, 1831.

I.

Observations on the Structure and Diseases of the Testis. By *Sir Astley Cooper*, Bart., F.R.S. Serjeant-Surgeon to the King, Consulting Surgeon to Guy's Hospital, &c. &c. Royal 4to. pp. 245. 14 Plates. London, 1830.

[Second Analytical Article.]

Having fully treated in our last article on the simple diseases of the testicle, and on those which are specific but not malignant, it remains for us to consider the malignant affections of the organ, and the several diseases of its tunics. The study of the malignant diseases of the testicle is one of paramount importance, inasmuch as on our knowledge of the symptoms they present, depends our performance of an ugly, painful, and dangerous operation, with strict propriety and just necessity. The surgeon well acquainted with this interesting branch of his profession will operate where an ignorant practitioner would refuse, and refuse where the other would operate. It requires a powerful motive to induce a man of the slightest degree of sensibility, to contemplate without a sigh, or to study without a shudder, these melancholy maladies. How painful a spectacle it must be to witness the march and the ravages of a disease, which is loathsome to the eye, and disgusting to the sense—to see a miserable fellow-creature worn down to the grave by a foul and a stinking cancer, bleeding, sloughing, spreading before his eyes, and eating from day to day and from hour to hour to the very core of his existence. Yet the poor wretch too often hugs hope to the last, and when all around wish him dead from very pity, he eyes his malady with solicitude and alarm, and implores from art a respite which it cannot afford.

I. The Fungoid Disease.

This has been described by different authors under the terms of pulpy, medullary, soft cancer, and fungous hæmatodes. The term *fungus* is most applicable, for, when it ulcerates, it forms a large fungoid projection, full of blood, and bleeding from the slightest laceration, or from none at all. It has been designated medullary, because it resembles brain ; pulpy, because of its softness ; and soft cancer, because it resembles scirrhus. Sir Astley, however, loves simplicity in surgery, and as a name is but a name, he confines the appellation of the disease to fungus or fungoid.

Its symptoms are as follow. It begins with an enlargement of the body

of the testis, at first attended with even scirrhous hardness. The enlargement extends so rapidly, that in three or four months the whole body of the testis will be diseased, and then the epididymis becomes affected from one end to the other. Whilst confined to the testis the swelling is globular, but when the epididymis also is diseased it is pyriform, and so much resembles dydrocele as to be readily mistaken for it. This deception is increased by a small quantity of water being frequently effused, on which account the complaint has been denominated hydro-sarcocele. When carefully examined, the solid swelling is felt through the water, and the sides are found flatter than the fore part. The surface of the testicle is frequently uneven, but not in the early stages.

At first there is little pain, but the part is soon the seat of occasional darting pains, following the course of the spermatic cord to the groin and loins. If much handled it remains tender and more painful. The growth is uncertain; it sometimes increases quickly to a great size; at others, months may elapse before it is considerable. Neither is its growth steady and equal, but becoming very painful for two or three days it increases rapidly, and then remains stationary for two or three weeks. Slight causes will kindle it into activity; a catarrh, a little more exercise than usual will light up fresh inflammation. At first the scrotum is unchanged, and the cord is healthy; but the veins of the latter become enlarged.

The constitution seems little affected, but some of the secretions are found upon inquiry to be imperfect; the appetite is lessened, the body costive, the motions deficient in bile. Some disappointment, suspense, or anxiety has mostly been for some time in existence. Such are the symptoms of the first stage.

In the second, the scrotum is covered by varicose veins; the testis yields to pressure, so as to counterfeit the presence of water; the pyriform swelling gives force to the suspicion of hydrocele; and, as the water produced by the irritation of the disease increases, the mistake is still more readily made. The patient now complains of occasional darting pains in the tumour, tenderness of the testicle on pressure, and uneasiness in the back. The cord becomes thickened to the ring; the veins are enlarged; the countenance is sallow; in the centre of the cheek is a small fixed blush. There is sometimes constipation, at others diarrhœa, which relieves the symptoms for a time. The appetite is defective, the rest often disturbed by pain and irritation, the body becomes emaciated.

In the third stage the testis adheres to the scrotum, which no longer moves readily over it. One or more absorbent glands enlarge in the groin of the affected side, and if many are implicated, those on the opposide side suffer also. Opposite the adhesion of the scrotum the testis appears knotted and unequal on its surface, and similar inequalities exist in other parts of it. The cord grows enlarged, contracted,* hardened, varicose; sometimes it adheres to the pubes; the testis is firmly bound there.

The veins of the scrotum enlarge, and a purple blush appears in one spot. The sense of fluctuation is then so distinct that the surgeon puts his lancet

---

* It is difficult to imagine enlargement and contraction simultaneously occurring. Perhaps compact would be a better term.—Rev.

into it; he is surprised to see blood only issue from a spongy structure. The wound heals, but soon afterwards ulceration ensues, and a fungus projects, bleeds, discharges a gleety serum of peculiarly faint odour, spreads in two or three weeks to the breadth of the palm, sloughs often, is extremely offensive, occasionally very painful, not tender to the touch, and gives issue to a brain-like substance, if the testis be compressed. At length the miserable patient sinks from hæmorrhage, discharge, and constant irritation.

But ulceration does not always occur. Water in increased quantity forms in the tunica vaginalis. Most frequently the cord becomes enlarged and tuberculated, and leads to a tumour just below the kidney, distinctly felt if the thighs be bent and the abdominal muscles relaxed. The pain is acute; there is often colic; nausea, vomiting, great pain in the abdomen soon after swallowing food. The patient is attacked with diarrhœa—his appetite is gone—his countenance sallow and wan, and his eyes yellow—he grows very thin—the thighs and legs first swell on the diseased side and then upon both, accompanied by pricking pains—his abdomen enlarges—he has hiccough—rapid pulse—profuse perspirations—and, he dies. The duration of the struggle varies in different individuals. If the disease be malignant from the first, it has run its career in twelve months; if, at first simply chronic, it degenerates into malignancy, years may elapse before the fatal termination arrives.

Dissection of the Fungoid Disease. It is excessively hard in its commencement, and now, when examined by dissection, the effusion, is found occupying only a part of the substance of the testicle. In a case, in which the disease had only existed four months, Sir Astley found that the hardness was not occasioned by the very solid nature of the substance effused, but by the excessive distention and unyielding nature of the albuginea. The effused substance was fibrous, of yellowish white colour tinged with blood, partially vascular, and, when macerated, flocculent, and looking like matted wool. The seminiferous tubes ceased to be observable at that part of the testis, but in others they remained entire.

In the second stage of the disease, a similar soft and white fibrous matter occupies the whole of the testis and epididymis, the parts of which readily yield to pressure. Intermixed with this specific deposite is yellow fibrine, or coagulated lymph, the result of common inflammation. When macerated in this state the soft specific effusion is removed, and leaves behind, like a cellular structure, the tendinous septa of the testis which enclosed it.

In the third and last stage, when the testis has been excessively enlarged, the tunica vaginalis contains a considerable quantity of water; the albuginea has given way; and a portion of the disease projects through it in the scrotum, giving rise to the inequality felt upon the surface of the testis, and the contamination of the absorbent glands in the groin. The interior of the testis contains cysts of cerum, coagulated blood, and a white soft fibrous matter, which, when compressed, gives issue to a creamy substance, compared to putrid brain. If the scrotum has been ulcerated, then a fungus of precisely the same material as the disease, projects from the interior of the surface of the testicle where serum has not been effused.

The spermatic cord is excessively enlarged, indurated, and tuberculated,

from the morbid secretion being irregularly deposited; but in some fatal cases the cord is not diseased. A quantity of serum is found in the abdomen, and behind the duodenum is placed a large tumour, adhering to that intestine in front and concealing the aorta and vena cava behind. It varies in dimensions, from those of a clenched hand to the size of a child's head. When cut into, it contains a soft yet solid fibrine, intermixed with a creamy blood-stained fluid. In some persons the tumour begins from the lower part of the loins, and extends to the diaphragm, involving the kidney; on attempting to dissect it, a cream-like matter burst from its various parts.

The aorta and cava are diseased, fungous tubercles and effusion being produced in their coats, and fungous effusion into the interior of the former. In many instances the mesenteric glands are affected. The omentum is sometimes thickened and puckered up. There are commonly tubercles in the liver, and Dr. Farre has engraved a drawing of the liver of a child thus diseased. In the collection at St. Thomas's Hospital is a preparation of the thoracic duct obliterated by this disease, and forming a tubercle at one part, as large as a walnut.

Sir Astley takes no notice of affection of the lungs in these cases, but Mr. Brodie has frequently seen patients die with symptoms of hydrothorax, after the removal of fungous testicles. On dissection effusion is found in the cavities of the pleuræ, and fungous tubercles in the lungs. We have ourselves seen fungoid deposites in the lungs, as well as in the cranial diploë and liver, after amputation of the breast for fungoid disease. There can be no question then, that the lungs are not unfrequently implicated in these cases, though the fact appears to have escaped Sir Astley's observation. We have also seen a case of fungous tumour in the neck after castration for this disease. The patient had another such tumour in the abdomen, and died of peritonitis occasioned by the latter. We have mentioned that, after amputation of the breast, several such tumours formed in the diploë of the cranial bones, and it is not improbable that the same may occur after amputation of the testis. The fact is, that these secondary malignant depositions may be formed in any texture of the body, though the lumbar glands appear to be most frequently affected, when the testicle has been diseased. Of the viscera the liver is most commonly concerned.

The nature of the disease is, like that of every morbid growth, enveloped in obscurity, but yet the more palpable characters are not beyond our ken. It differs from common inflammation, says our able author, in soft fibrine being effused, instead of the healthy and solid albumen of the blood. Its texture allows of organization in some parts, but in others it is too weak to support the blood vessels shooting into it, and the blood is extravasated in consequence. In some parts serum is effused, and cysts are formed which contain a fungus in the interior. When injection is thrown in by the arteries and sections made of the disease, some parts are coloured, whilst others are entirely unorganized. When injection is thrown in by the veins they are found very large and varicose.

If the fungus produced by the disease be carefully examined, some parts bleed from the slightest touch, in consequence of the frailness of the coats of the vessels, and others slough, from the want of organization. The surrounding arteries are *not* much enlarged, but the vessels of the disease have no contractility, and very tender coats; they bleed profusely when cut into.

The best mode of examination is to inject the part and macerate it; the soft and thickened fibrine are separated, and the supporting tissue will appear.

Cause of the Disease. It is local or constitutional. It is sometimes founded in a constitution naturally feeble. Sir Astley has seen it in infancy, and the child had greatly the scrofulous character, and even in some cases where the patient was adult, he has thought the same diathesis prevailed. It has been remarked, we believe, that fungus hæmatodes of the eye very frequently occurs in scrofulous children, and in most of the cases of fungus hæmatodes in other parts which we have witnessed, the patient has appeared to us to be of strumous habit. But perhaps this goes for little, as scrofulous persons are more disposed than others to all diseases, from their natural delicacy and weakness of conformation.

It occurs also in those who have been originally healthy, but whose constitutions have been broken down by anxiety of mind, intemperance, over exertions mental and corporeal, and want of attention to the due performance of the secretions. In such persons a slight feverish state is induced; the tongue is white with a yellow streak in its middle; the appetite and digestion are defective, probably from depraved gastric secretion; the bowels are costive; the bile absorbed, and the eye consequently yellow; the pulse frequent; the cheek flushed, though the skin is sallow; the nervous system irritable; the rest broken. In such a state of constitution a slight injury gives rise to an unhealthy local action, and a peculiar and unnatural secretion is the consequence. When the local disease has existed for some time, the absorbents become irritated, and the diseased action is extended to their glands. Other structures then become irritated also; similar diseases occur out of the line of absorbent irritation; and then various parts of the body are attacked, for the same constitution will produce the same local action, under accidental but continued irritation.

As a proof that the disease is constitutional, we find that there exists a disposition to form it in various portions of the body; and that there is also a peculiarity in the local action, is shewn by the wound for the extirpation of the part often healing in the kindliest manner, the disease, notwithstanding recurring in the cord or elsewhere. This proves that the local action differs from common inflammation, and when the disease returns, it is after common inflammation has ceased. The state of the blood also favours the production of the disease; for occasionally, when drawn, it coagulates very weakly, and the serum is large in quantity, and of a deep yellow colour.

Such are the opinions of Sir Astley Cooper on the nature and causes of fungoid disease. If they add little to our precise knowledge of this mysterious subject, it is only what has happened with the speculations of the ablest of his predecessors. We know, indeed, little of the laws which influence morbid growths, and we fear that we are not likely to know much. It is clear that the fungoid disease, if not constitutional at its onset, very soon becomes so, and that little is effected by the knife, even when resorted to under the most favourable circumstances. This is at present the most practical view we can take of the subject.

Diagnosis. "From hydrocele it is often difficult to distinguish it, if in hydrocele

the fluid be opaque, or the tunica vaginalis be greatly thickened; but in a very large proportion of cases hydrocele is transparent, and therefore it is only required to press the fluid to the fore-part of the tunica vaginalis, and to render the scrotum very tense, and the fluid is seen, either by the sun's rays falling through the part, or by the light of a candle in a room otherwise darkened. Besides, this disease, in its second and third stages, yields rather than fluctuates; but still the distinction is sometimes difficult, and all candid persons will confess they have erred, and when they have believed it water, have found it solid. Mr. Pott, Mr. Hunter, Mr. Cline, and many others have been thus deceived; and I am ready to confess that I have more than once been mistaken." 128.

In all cases of doubt Sir Astley advises us to make a small incision in the scrotum, and then puncture the tunica vaginalis; the tunica vaginalis should always be opened before castration. From the hydatid testis, the fungoid disease is only distinguishable by the health remaining perfect in the former. As each disease requires amputation, the diagnosis is less important The excessive hardness of fungus in the first stage, and its yielding or obscure fluctuation in the second, distinguish it from chronic enlargement of the testis. We now arrive at the

Treatment. When once this horrible disease is formed, we know of no treatment that can cure it. Improvement of the health and diminution of local increased action may retard its progress, but they do no more. Sir Astley suggests the trial of the various new medicines. Plummer's pill, sarsaparilla, leeches, have been advised; but why should we persevere with what have often failed? We possess then nothing that will cure the disease, but it is right to give medicines that will alter and improve the constitution, prior and subsequent to an operation. Calomel and opium in considerable doses at night, and inf. gent. c. with soda and rhubarb twice a-day, or the inf. calumb. instead of the gentian, are the medicines recommended by Sir Astley for this purpose. Evaporating lotions and the frequent use of leeches are the best local means.

But so soon as it is certain that the disease is of fungous character, no time should be wasted in exhibiting medicines. The operation should be performed immediately, and the constitutional remedies may be employed for several weeks after it. An early operation gives the only hope, and that is but a faint one; for in one case, in which it was performed in four months after the commencement of the disease, it was unsuccessful. Sir Astley is of opinion that it should not be delayed beyond three months, mercury having been previously tried.

He advises that the treatment recommended for the simple chronic disease be first fairly tried, and if it fail, no other that he knows of will succeed. The operation should be performed so soon as the patient has recovered from the effects of the mercury, for erysipelas is apt to follow if done immediately after the use of the mineral. If the testis has been suffered to grow large—if the cord be diseased, apparently only to the ring—if the appetite be impaired, with occasional vomiting—if there be occasional severe pain in the abdomen, tenderness on pressure, diarrhœa at one time, and costiveness at another—under these circumstances, although no tumour can be felt, the disease will return in some other part of the body after operation. Sir Astley thinks he has seen one medicine of service, though doubt may reasonably

be entertained upon the subject—it is the oxymur. hyd. given to gentle affection of the mouth, and continued for a length of time, in combination with the tinctures of bark and rhubarb, or the concentrated decoction of sarsasparilla. If the operation be performed, the surgeon must still attempt to invigorate and alter the constitution.

Such are Sir Astley's very practical statements, respecting the causes, nature, and treatment of the fungoid disease of the testicle. The prognosis to be drawn from them is gloomy, but certainly not more so than experienced surgeons will own to be strictly true. We do hear from time to time of fungous disease cured by medicines or by operations, when circumstances appeared most unpropitious. But the reporter will be found, on close examination, to have deluded others or to have been deceived himself. Let no such facts be trusted. In every point of view, it is better to err on the side of firm and rational scepticism, than on that of too easy belief and too general credulity. If this rule were implanted in the breasts of professional men, perchance we should be less encumbered with false facts, or, at all events, they would exert a less baneful influence on the precepts and practice of our art.

We have one remark to make on the exhibition of mercury in these cases. As our readers will have seen, it is given as in some degree the test of the benignity or malignancy of the disease. If it answers it is well. But if it fails we are not where we were before its exhibition, and that is the point to which we would direct attention. In two cases of the early stage of the fungoid disease, in which the diagnosis was of course doubtful, it was given with the same views as those advocated by Sir Astley. It disagreed in a marked manner. In one patient, more particularly, the health, which had previously been good, broke down; the disease increased suddenly; and after castration it shewed itself in the loins, with a rapidity unequalled by all that we have witnessed before or since.

We have also reason to believe that the lumbar glands are too often contaminated in the earlier stages of this and the hydatid disease, when no indication of this formidable feature is given by the symptoms of the case. Mr. Brodie amputated an hydatid testis in an early stage, the cord, if we remember right, being healthy. The man died of peritonitis, and the lumbar glands were found affected.* Mr. Hawkins lately amputated a testis for the fungous disease, in a tolerably early stage. The cord was a little enlarged, but so slightly that it continued for some time a question, whether it was enlarged at all. This patient also died of peritonitis, and the lumbar glands were found distempered.

Our able author details four cases of the disease. We shall give the particulars of two in this place, the remainder will be found in the Periscope department.

Case 1. James Watson, ætat. 40, was admitted into Guy's Hospital, for fungous disease of the left testis, which was extirpated. The wound healed kindly and the patient was discharged in the following month. In the course of ten weeks he was attacked with severe shooting and cutting pains,

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* We have adverted to this case in the chapter on the hydatid disease.—*Rev.*

commencing in the part of the cord from which the testis was separated, and extending into the groin and loins, but occurring only once in a week or ten days. He was again admitted into the Hospital. The divided end of the chord was enlarged, hard, and painful upon pressure. The scrotum was not adherent. The tumour in the inguinal canal enlarged, and in two months he complained of pain in the abdomen on pressure. A large tumour was felt on the lower part of the left side of the sigmoid flexure of the colon, and in the region of the kidney. Another large tumour was also felt, extending towards the diaphragm. They were painful, especially on pressure, increased in size, emaciation advanced, constant and severe diarrhœa was established, and the patient died exhausted by continued irritation.

Sectio Cadaveris. On dividing the left side of the scrotum, a soft, white, pulpy tumour, as large as a walnut, was seen at the end of the remaining part of the spermatic cord. The latter was thickened, and another tumour of the same description as the first adhered to the peritoneum at the lower part of the abdomen. An immense tumour stretched up from the edge of the pelvis nearly to the diaphragm, filling almost the cavity of the abdomen. The large intestine passed over it, it enveloped the aorta and vena cava, and the left kidney was so implicated that its functions had been in all probability destroyed. When cut into or torn, a curd-like matter, resembling very thick cream tinged with blood, escaped from the openings. Many of the mesenteric glands were enlarged; the liver had two small white tubercles in its substance; the thoraic duct was healthy, but a small gland, apparently affected with the disease, was attached to it. The thoracic organs were healthy.

Case 2. This is communicated to our author by Mr. Lunn of Rotherham. A man, aged 48, a *Borer* by trade, applied to Mr. Lunn in March, 1809, for disease of the right testicle. There was great pain in the loins and now and then in the body of the testis, the enlargement of which resembled a hydrocele in all except its transparency. The scrotum was stretched, and a fine vascular net-work existed on its surface. Mr. Lunn made a puncture with a lancet and discharged about six ozs, of colourless serum. The testis was now ascertained to be about four inches long, and six or seven in circumference, not painful on moderate pressure. The spermatic cord presented a varicose enlargement of the veins; the vas deferens was perfectly sound. Mr. Lunn recommended extirpation, but the patient desired some milder remedy and resumed his work. Cicuta, mercury, and leeches were employed for a month, when the patient was much as before, but with increased pain, both in the testis and the back. The puncture was repeated, and nearly a pint of fluid discharged. The testis had increased in size and sensibility, and was somewhat uneven on its surface. The cord was as before.

On the 30th April the testicle was amputated in the usual way, and in eighteen days the patient was quite well. So he continued till August 1810, when he complained of violent pain in the back, which was removed by a purge of calomel and scammony. In September he relapsed and the untoward symptoms gradually increased. He complained of great weakness and numbness of the right leg, attended with œdematous swelling of the limb and a smarting pain at the cicatrix. In a few weeks the left leg

became swelled and painful, and afterwards the cellular membrane about the nates, abdomen and chest, the penis and scrotum, was distended with a preternatural quantity of fluid, very distressing to the patient. The anus became nearly closed, and stools could only be procured by cathartics. At last, worn out with emaciation and excessive pain, he died in February, 1811, having survived the operation one year and ten months.

Dissection. On making an incision through the thickened abdominal parietes, several pints of brown serum escaped. The omentum was corrugated, contracted, hard, and knotty. The large intestines were universally thickened in their coats, with a spotted inflammatory appearance, and firm adhesions to each other and the neighbouring parts. The cæcum was united to and buried in the enlarged iliac glands on the right side, and the glands on the left were likewise much enlarged, and in a state of suppuration. The sigmoid flexure of the colon formed, along with the lumbar glands, a heterogeneous diseased mass, running into the pelvis, about the length and circumference of a man's fore-arm, and containing a great quantity of pus and curdy matter. The rectum was amalgamated with this horrid mass of disease, every gland within the pelvis partaking more or less of it. The mesenteric glands were of all sizes and in all stages of the disease. The pelvis was frequently filled with matter from the incision; some of the glands cut like cream cheese. The lumbar glands were astonishingly large and contained about a pint of pus and curdy matter. The contents of all the glands were peculiarly white. No vestige of the cord on the right side was found.

It is impossible not to recognize in the account of this dissection, the ravages of fungus hæmatodes.

II. The Scirrhous Disease of the Testicle.

Sir Astley doubts the existence of this disease in the form it assumes in the mamma: an excessively hard swelling, intersected by a net-work of strong bands or fibres.

"I have seen a few instances of a very solid enlargement of the testis, accompanied with great weight, attended with occasional pain, beginning in the body of the testis, never becoming soft, like fungus, or producing a fungoid and very vascular bleeding surface, but feeling tuberculated, irregular, and excessively hard, but never becoming so large as the fungoid diseases: the pain extending to the loins; the spermatic cord enlarged, hardened, and tuberculated; a smaller tumour than that of the fungoid disease forming in the abdomen; some water is secreted into the tunica vaginalis, at length a dropsical effusion into the cellular membrane of the leg and thigh of the diseased side is produced, and then the other leg becomes similarly affected. Ulceration I have once seen occur:—the testis gradually wasted under it—the glands of the groin became diseased—and the man, after some months, died. But this state rarely happens; for generally, without ulceration, the patient's countenance becomes sallow, and he sinks under impaired digestion, pain and tumour in the abdomen, and an irregular state of bowels, which are frequently accompanied with ascites." 151.

Dissection of the Disease. Water is found in the tunica vaginalis, so that there is hydro-sarcocele, as the old surgeons termed it. The tunica vaginalis is in parts adherent to the testis. In the testis a hard white mass, in lobes

or tubercles, and little vascular, usurps the place of the seminiferous tubes; it is sometimes interspersed with small portions of cartilage or bone. The epididymis contains the same fibrous secretion; the cord is enlarged and has small white tubercles in it. The tumour in the abdomen is of white solid texture, very unlike that of the fungoid disease.

Diagnosis. The complaint is distinguished by its slow progress, its great hardness from first to last, its weight, and its irregular tuberculated feel. Like the fungoid, it is founded in a diseased state of the constitution and in a peculiar local action; like it, also, it extends by absorbent irritation. However, it occurs less in different parts of the body at the same time, and its fatal progress is less rapid. In scirrhus the secreted material is a solid compact fibrine, becoming vascular with difficulty, and its arteries always being small, though its veins are varicose. In the fungoid disease it is a soft fibrous mass, easily rendered vascular; bleeding readily; growing rapidly in some parts; too soft to support vessels in others; and then extravasations of blood take place.

These distinctions are laid down with much perspicuity. But they are not in all cases so clearly made out, neither by symptoms, nor afterwards by dissection. We have seen a tumour in the breast which, before amputation, resembled scirrhus in its hardness and fungus hæmatodes in its ulceration. When dissected, it was difficult to say to which morbid structure it belonged. Scirrhus and fungus-hæmatodes, then, occasionally run into and blend with each other, though commonly the broad and perceptible differences, pointed out by Sir Astley Cooper, are observed.

Treatment. Medicine appears to have no more power over this, than over the fungoid disease. The same course and plan must be adopted. Calomel and opium with leeches, evaporating lotions, and the recumbent posture, should be tried, and if they fail the remainder is confessedly experimental. We have more time allowed us, and that is a great point, but we must not delay castration so long as to endanger disease in the cord or a tumour in the abdomen. In the local treatment of the fungoid and scirrhous inflammation, our object should be to occasion sloughing of the sores, when they have gone into ulceration. Our author has seen a very large fungous tumour of the breast slough away; the wound healed, the woman was discharged well, and she did not return. The result is of course uncertain. We have seen a fungous tumour of the breast slough deeply, and the remainder of the gland was removed by the knife. The patient left St. George's Hospital with the wound healed, but in two or three months she died with fungous tumours in the diploë of the cranium, in the lungs, and liver. We have referred to this case already.

Extensive sloughs of the fungoid projection may be produced by powdered alum, sprinkled on its surface. To cleanse the sore and remove the offensive smell, the nitric acid, in the proportion of ʒj. to ℥ij. of distilled water, is an excellent application. The chlorates of lime and soda are also useful in the same point of view. We have seen the ioduret of mercury, much lauded by Biett in cases of lupis, tried on a cancerous ulcer of the breast; it irritated and was discontinued. We would say of the chlorates, from what we have seen of their use, that they are cleanly applications, useful in foul-looking sores, but certainly not adapted to cases of decided

sloughing. For that, the balsams and more energetic applications are required. Sir Astley only details one case of the schirrous disease of the testis.

Case. Thomas Cheston, aged 44, was admitted into Guy's Hospital, with enlargement and induration of the testis and epididymis. The spermatic cord was not enlarged. He had much pain in the loins, increased on stooping—his countenance was sallow—his digestion impaired—his leg and thigh œdematous. He had been a strong muscular man, and thought he was in good health when the disease began, which was in June 1808. He first observed pain in the loins, with hardness and uneasiness in the testicle, which slowly increased in size, but never became large. Water formed around the testis, and, when four ounces were drawn off, the indurated mass was felt through the surrounding fluid.

The testis was removed in March, 1809, and the wound slowly healed. He was then discharged from the hospital, the swelling still remaining in the leg and thigh, and in a month after his return to Tottenham he died. On examination of the testicle after its removal it was found hard, white, compact, tuberculated, and in a few spots very vascular. The epididymis was also enlarged.

This concludes the account of the diseases of the testicle and epididymis. Before proceeding to the affections of the tunics, Sir Astley has a chapter on the operation of castration which deserves attention.

III. On the Operation of Castration.

This operation is required for the chronic inflammation of the testis, when it has ulcerated and formed a granular swelling, by which a large proportion of the testis protrudes. Sir Astley has also known castration required in chronic suppuration, when numerous sinuses have formed through the scrotum. For the irritable testis it is sometimes required, when medicine has proved abortive, and suffering renders existence burdensome. In these cases the operation is a straight-forward proceeding. But when it is contemplated for fungoid disease, it requires great judgment to determine when it shall be done, or whether it ought to be done at all. The disease when first discovered may have long existed, and the surgeon will therefore inquire into its size at the time it was first perceived. He will also try to learn the patient's previous health, and ascertain if he has suffered from pain in the loins, or severe dyspeptic symptoms ; for disease in the testis is sometimes not merely the precursor but concomitant of disease in the abdomen.

Case. Mr. ————, æt. 52, has now enlargement of the right testis to five times, and, of the left, to three times their natural size. There is water in the tunica vaginalis on each side. The scrotum is painful, and its veins are enlarged and numerous. The spermatic cord on the right side is enlarged, and a tumour can be felt in the course of the spermatic vessels, below and before the right kidney. The liver and loin on that side are extremely tender on pressure. The right leg has been swelled for a week. He has quick pulse ; slight but constant fever ; great thirst ; occasional

shortness of breath, particularly after taking food; debility; emaciation; and anxious countenance.

In the early part of 1829 he had an attack of hemiplegia, succeeded by severe lumbago. In September of the same year he found the right testicle enlarged, hardened, and surrounded with water; and in a few days afterwards the left testis became affected in a similar way. He was frequently sick, and had occasionally severe pain in the abdomen. He had suffered greatly from anxiety of mind.

In the appendix we learn the issue of this case. In September, 1829, the tunica vaginalis was punctured by Mr. Callaway, and the fluid evacuated; it immediately coagulated. In November, he was attacked with daily paroxysms of pyrexia, ushered in by a rigor and terminating with perspiration. In December he was seized with a slight epileptic attack, or rather we should say from the symptoms, apoplectic. From this he soon recovered, but that day was to him a blank in his existence. He had now daily paroxysms of fever, and several spasmodic attacks in the muscles of the legs and arms. His health gave way; he frequently complained of shooting pains in the head, occasionally accompanied with slight delirium and double vision. At times this was followed by copious perspirations. In February, 1830, he died. For three weeks previous to his death, the bowels rarely acted without an enema. This poor gentleman was a surgeon.

Dissection. The left testis was greatly enlarged, and a large hydrocele existed in the tunica vaginalis. When the testis was cut open it was found to be loaded internally with a soft secretion, which did not seem vascular, and in many parts was semi-fluid. The cord was free from disease. The absorbent glands in the course of the spermatic vessels was slightly enlarged, and had a white appearance internally. The right testis was enlarged and contained a white solid matter; there was hydrocele also. The cord was not diseased, but the absorbent glands were affected like those on the opposite side. The vesiculæ seminales, prostate, and lower part of the vasa deferentia behind the bladder, were distended with a similar white substance and greatly enlarged. The substance in question was unorganized. The internal iliac and hypogastric arteries on both sides were obliterated in parts by a hæmatoid substance, which adhered very strongly and inseparably to their coats. The colon, near the cæcum, presented a stricture with thickening, and a circular ulceration of the mucous membrane of malignant character. The left kidney contained a fungoid tubercle, of a darker colour than that in the testis. The ureter was enlarged. The right kidney was wasted to a third of its natural size, and its pelvis and ureter were excessively enlarged to the termination of the latter in the bladder. The lungs were tuberculated and ulcerated.

Sir Astley observes that in this case there was a mixture of scrofulous and fungoid disease. In such an individual, the disease in the testis is the result of a constitution broken down by anxiety of mind, and the concomitant of worse abdominal complaints. If the patient did not die, as he probably would, of an operation, it would only deprive him of a part of his disease, which would certainly proceed with more inveterate malignity elsewhere.

Before attempting the operation it is necessary to examine minutely the state of the cord, to learn if it be diseased to the abdominal ring. If it is, castration ought not to be performed, for, Sir Astley has never known it

succeed. If any of the glands in the groin are affected, the operation is also forbidden. Sir Astley confesses that the fungoid disease is the most malignant to which the body is exposed; it is uncontrollable by medicine, rarely successfully removed by operation.

In the scirrhous disease, we have not only more time allowed for the trial of medicine and the performance of the operation, but the success of the latter is somewhat greater. When the cord is diseased, the same objections lie against castration, as in the fungoid affection of the testis. In a case of hardened and enlarged testis, with the cord greatly thickened and indurated to the abdominal ring, Sir Astley refused to operate, deeming such a step improper. A pupil at the hospital took lodgings for the man in the country, and removed the testis. The patient died of peritonitis. This ignorant head-strong fool deserved a severer punishment for his conduct than his patient's death.

We now arrive at the mode of performing the operation, recommended and practised by our excellent author.

The pubes being clearly shaved on either side, a table of convenient height is prepared by covering it with two blankets and a sheet; a T bandage is fastened round the patient's loins.

A small incision is then made into the tunica vaginalis on the fore part of the testis, to satisfy the surgeon that the disease is neither hydrocele nor hæmatocele. This being determined, the operation is begun by *first* making an incision from the abdominal ring to the very lowest part of the scrotum. From this, two advantages arise;—first, matter is prevented from accumulating in the scrotum, when the suppurative inflammation begins: and secondly, the testis is much more easily removed. In the next place, the facial sheath of the spermatic cord is to be opened below the abdominal ring, and the cord to be completely exposed. Thirdly, the cord is to be well pinched up between the fingers, and a tenaculum, or needle and ligature should be thrust through it and given to an assistant, to prevent its retraction. Sir Astley has always done this since Mr. Cline informed him that he once saw the cord retract within the inguinal canal, occasioning some bleeding and considerable perplexity. The fourth step is to cut through the cord. Sir Astley protests strongly against dissecting round the testis before the cord is divided, a proceeding which lengthens the time of the operation, and adds materially to the sufferings of the patient. Fifthly, the lower portion of the cord is to be taken hold of by the surgeon, and by it the testis is to be drawn from the scrotum, its adhesions being cut as it is drawn out. This plan is in general easily executed, and if there be adhesions to the scrotum, they are more readily divided by this plan than by any other method. Sixthly, lift up the cord with the tenaculum or ligature, and secure the spermatic artery with a fine ligature. Seventhly, turn the cord upwards towards the abdomen, and see and secure the artery of the vas deferens, a vessel which frequently is not tied, and affords a most teazing and continued bleeding.

Sir Astley reprobates in the strongest manner, the not-ancient practice of tying the whole of the cord in one ligature. Mr. Chandler did this in 1807. The man complained at the time dreadfully—on the eighth day the ligature separated—on the following day tetanus began, and in three days afterwards he died.

Eighthly, secure the external pudic artery, which is often divided in making the upper part of the incision. If it bleed freely during the operation, let the assistant compress it with his finger. Ninthly, secure every vessel of the scrotum which continues to bleed, or which has been observed to bleed freely during the operation. Tenthly, make two sutures, at least, in the scrotum; and if the testis has been very large, or has adhered to it, a portion of the scrotum may be removed, to prevent its forming a loose bag for blood and pus.

The patient is to be carried to bed in a horizontal posture, without any dressings being placed on the wound. When all danger of bleeding has ceased, and not before, lint and adhesive plaster are applied, and the T bandage is to be secured. The patient is to be kept cool and covered only with a sheet; in Summer cold spirituous lotion should be kept upon the scrotum. The sutures should be removed in eight days, and the wound commonly heals in three weeks. Sir Astley once removed a diseased testis accompanied with hernia; he first reduced the hernia, and then dissected the cord from behind the sac. The patient had a chronic complaint in the testis; he did well. Sir Astley also removed, in Guy's Hospital, a diseased testis, accompanied by adhering omental hernia. The patient had no unfavourable symptoms.

Sir Astley makes no mention of the bad symptoms which occasionally follow castration. There is always some risk of suppuration and even sloughing in the loose cellular membrane of the scrotum. That we have seen. There is a disposition to secondary hemorrhage, but this may be diminished, if not prevented, by carefully tying every vessel at the time, and observing Sir Astley's directions with regard to the management of the blood-vessels. If oozing of blood takes place, notwithstanding these precautions, then the application of cold to the scrotum is generally successful. The most efficient kind of cold is the application of pounded ice in a bladder, but although it arrests the hæmorrhage, we think we have seen it in several instances productive of equivocal results. Men laugh now-a-days at the doctrine of revulsion, but very powerful repellents, and ice is one, are occasionally dangerous in spite of the sceptics. We have seen two instances of fatal peritonitis after castration, and Sir Astley details another. It is remarkable that in all the three the cord was either enlarged or the lumbar glands diseased. We have also seen a temporary retention or partial suppression of urine produced by the operation, and this is alluded to by Petit. With these few remarks we take leave of the operation of castration. We could have wished that Sir Astley had pointed out, from his wide experience and accurate observation, the usual immediate consequences of the operation which have been witnessed by himself. We are thankful for what we have got; it is impossible to feel dissatisfaction at the able and worthy Baronet.

IV. ON HYDROCELE.

The tunica vaginalis is a serous membrane, and like all structures of that class, it is liable to dropsical effusion. When opened in its natural and living state, a halitus only arises from it, and then the surface becomes dry; but if from any cause there is a greater determination of blood to the part, the secretion becomes a fluid, which accumulates in considerable quantity

and produces the disease called hydrocele. Hydrocele then is an accumulation of fluid in the tunica vaginalis, producing a pyriform, fluctuating, and generally transparent swelling in the scrotum. The term applies to any watery tumour, but is now limited to hydrocele of the tunica vaginalis and hydrocele of the spermatic cord.

Symptoms of the Disease. It begins opposite the lower part of the testis. It is unattended by pain and usually first discovered by accident; the fingers sinking readily through it when compressed, and the testis being distinctly perceived. As it increases, the swelling becomes tense and conceals the testis. It next assumes a pyriform shape, the broadest part below, and continues free from pain, till it acquires a great size, when its weight and tension occasion an uneasy sensation in the lower part of the back. Some few of the vessels of the scrotum are enlarged but the skin is not inflamed. The general health is unaffected.

"When the swelling is attentively examined, it is generally found to be transparent; and as some Surgeons deny the truth of this opinion, it must arise from their not understanding the mode of examination. The room is to be darkened from the light of day: the patient holds a candle burning close to the side of the scrotum; and the Surgeon grasps the posterior part of the swelling, so as to render its fore-part as tense as possible; then the Surgeon, looking at the swelling from the opposite side to the candle, and placing his left hand on the fore-part of the scrotum, generally discovers its transparency. I have seen some Surgeons place a candle on one side, raise the scrotum, and look from the other, and say the swelling is not transparent;—no, and I should wonder if it were! for in this way it scarcely ever can be. The strong light of the sun falling directly upon the part, answers equally well in shewing its transparency, if the scrotum be rendered tense." 167.

Hydrocele has a distinct fluctuation, but when excessively distended feels hard. The testis is generally placed at the posterior part of the scrotum and two-thirds of the swelling downwards. Pressure there gives the sensation of squeezing the testis, and when the swelling is otherwise transparent, the testis may be seen there. Hydrocele is a very loose and moveable swelling; if it do not greatly distend the part in the course of the cord it bends easily on the abdomen, and moves readily in all directions.

Such is the usual character of the disease. Sometimes it is the result of inflammation of the testis, and then it is accompanied with pain, hardness, and swelling of the part, assuming more the form of the testis itself, and being less distinctly transparent. The fluid of hydrocele is like serum—yellow; transparent; coagulable by heat, acids, and alcohol; coagulating in port wine and in solutions of sulphate of zinc.

Varieties of Hydrocele. These are many. It sometimes exists on both sides of the scrotum; the swellings should be cured in succession. The testis varies in its situation. It is sometimes glued to the fore part of the tunica vaginalis, and the serum is accumulated on each side of it. A gentleman with this variety of hydrocele applied to a surgeon, who tapped it with a trocar, and, as no water followed, said, 'he was mistaken, and the testis must be removed.' The patient applied to another surgeon, who observing venereal spots on the abdomen, and a node upon the tibia, gave him mercury, with the effect of dispersing these symptoms, as well as the en-

largement and hardness of the testicle. The nature of the hydrocele was now apparent; it was injected from the side, instead of the fore part; and the patient perfectly recovered.

Inflammation of the testis is often followed by partial adhesions of the tunica vaginalis; and then if water is effused, it is variously situated, of course, with respect to the testis. It is rarely found posteriorly, and when there, it is in consequence of the tunica vaginalis yielding to pressure; thus a pouch is produced, with rather a narrow orifice of communication with the tunica vaginalis. Sometimes the water is collected in distinct and separate cysts in the tunica vaginalis. A cyst is sometimes formed from the extremity of the epididymis, and hangs within the tunica vaginalis; this is generally accompanied by common hydrocele. Hydrocele sometimes forms two swellings with an hour-glass contraction between them: one is placed opposite the testicle, the other reaches to the ring, and the two have a smaller swelling of communication. This swelling reaches to the abdominal muscles, and, like hernia, dilates upon conghing. It is distinguished from it by its permanence, its transparency, its fluctuation, its history, and the absence of intestinal interruption. The latter diagnostic sign is, however, in all such cases to be received with this understanding:—that intestinal symptoms may be accidentally conjoined with this or any other swelling of the kind, and then the surgeon must depend on the other diagnostic marks.

Two distinct hydroceles sometimes exist on the same side, of which the following case offers an example.

Case. Mr. Roberts tapped a patient for hydrocele, but still there remained a swelling, not admitted of being emptied through the canula, and half as large as that which existed before. The patient came to London. Sir Astley tapped the lower hydrocele, and a yellow serous fluid was discharged, but still the other swelling was there. It extended from the upper part of the testis to the ring, and was very transparent. Sir Astley tapped it and drew off a watery fluid, free from colour, and containing less coagulable matter than common serum. He afterwards injected the lower hydrocele and repeatedly tapped the upper swelling. He believes it to have been encysted hydrocele of the cord, for in a shut hernial sac he has never discovered fluid, although he has examined three or four in the dead body.

As the communication of the tunica vaginalis with the abdomen does not always close at birth, but sometimes remains through life, water formed in the one passes into the other, and thus there is a hydrocele communicating with the cavity of the abdomen. Sir Astley has several times seen this in children, and occasionally also in the adult. In the case of a young gentleman with this affection, Sir Astley applied a truss to obliterate the communication, and it cured the hydrocele, which was absorbed. In this case, the water probably formed in the belly and descended into the tunica vaginalis. When hydrocele communicates with the abdomen in the adult, and there is ascites, it is very convenient to tap the patient through the scrotum and tunica vaginalis.

The usual quantity of fluid in hydrocele is from six to eight ounces, but Mr. Cline drew off six quarts from the celebrated Gibbon. The fluid is generally yellow, transparent, and saltish to the taste. It sometimes con-

tains a quantity of white flaky matter produced by chronic inflammation; this is oftener observed in West Indians than in others; but Sir Astley has seen it in English patients. When produced under acute inflammation of the testis, the fluid is sometimes of a red colour, from a mixture of the red particles of the blood; the same appearance is observed when the hydrocele has immediately followed a blow.

Sir Astley has seen in the fluid of hydrocele loose cartilaginous and osseous bodies. They are accompanied with some inflammation of the tunica vaginalis; they grow by stalks from the surface of the testis and extremity of the epididymis, and, becoming detached, are found loose in the tunica vaginalis. When hydrocele has long existed, the tunica vaginalis becomes thickened like parchment, and opaque. It is also occasionally ossified; a product of chronic inflammation, and usually attended with some adhesion of the tunica vaginalis.

Diagnosis of Hydrocele. Transparency is in most cases a sure diagnostic mark. Its distinct and extended fluctuation, and its commencement at the lower part of the tunica vaginalis, and gradual extension upwards are also characteristic. It is less heavy than the diseased testis. The latter is more flat on the sides; more solid; painful when squeezed; the epididymis often forms a distinct swelling; the cord may be traced with ease; there is great vascularity of the scrotum; pain is generally felt in the loins; and there is usually the appearance of loss of health.

Hydrocele may be distinguished from hernia, by the occasional return of the hernial contents into the abdomen—by the dilatation of hernia in coughing—by hernia coming down from the abdomen, and by hydrocele growing upwards.

Hydrocele may be distinguished from varicocele by the latter disappearing in the recumbent posture. It is not so easy to distinguish it from hæmatocele, but the latter is usually caused by a blow, and is more solid than hydrocele. In cases of doubt the tunica vaginalis should be punctured with a lancet.

Causes of Hydrocele. Dropsy, generally. Sir Astley believes that true dropsy is very rarely produced by diminished absorption. It is generally the result of an increased secretion from the arteries, which is proved by the greater vascularity of the membranous surface producing it, the thickening and other changes observed in long continued dropsies and hydroceles, and the quickness with which hydrocele succeeds inflammation of the testis and tunica vaginalis. Sir Astley allows that common hydrocele is rather the result of relaxation in the arteries and veins, than of inflammation. On injecting the absorbent vessels of the cord, they are larger on the affected than on the opposite side. Hydrocele is not unfrequently the effect of inflammation of the testis, which leaves the tunica vaginalis filled with a deep-coloured serum, often slightly reddened, and readily absorbed. Hydrocele is merely a local disease, though sometimes connected with a general hydropic tendency.

Natural Cure of Hydrocele. If a hydrocele be suffered to grow large and the patient be obliged to labour, excessive distention will produce

inflammation of the tunica vaginalis and scrotum. A slough is formed, it separates, the water escapes, suppuration follows, granulations arise, and thus the patient is cured. Sir Astley saw this process on one occasion, and the symptoms were so severe that an unhealthy person would probably have sunk under them. Hydrocele is not always cured by a blow which tears the tunica vaginalis. In one gentleman the hydrocele disappeared in a few hours after the injury, but in six months was as large as before.

Cure of Hydrocele by Absorption. It is generally curable by absorption in young people. For a child, Sir Astley directs a dose of calomel and rhubarb occasionally, and a suspensory bandage, kept wet with the mur. ammon. 3ij. liquor ammon. acet. ℥vj. If the fluid be not quickly absorbed the tinctura lyttæ may be added; or the tincture of iodine may be applied. When hydrocele is the result of inflammation in the adult, calomel and colocynth, and an irritating lotion to the part often answer very well. They possess little power in common hydrocele, and Sir Astley has tried continued blistering unsuccessfully.

Tapping for Hydrocele. When the general health forbids the operation of injection; if a patient's fears prevent him from submitting to it; or if it be inconvenient to undergo any other operation, then the water is to be removed by tapping. We require a trocar and a canula. The latter should be two inches long and the eighth of an inch in diameter. Sometimes the tunica vaginalis is opened with a lancet, an awkward proceeding and leading to bleeding and hæmatocele. Before performing the operation, the swelling should be examined by the candle and careful manipulation, to ascertain the exact situation of the testis and cord. When partial adhesions of the tunica vaginalis have been produced, the spot for the introduction of the trocar must of course be varied.

Sir Astley's mode of performing the operation consists in making the patient stand before him, whilst he grasps the scrotum and swelling firmly with his left hand, and introduces the trocar two-thirds of the swelling downwards and with a slight obliquity upwards. When the canula has entered the tunica vaginalis the trocar is withdrawn, the canula is then passed farther into the tunica vaginalis, and the water escapes. When the trocar is introduced the swelling is grasped, that the fore-part of the scrotum may be put upon the stretch. The trocar is directed slightly upwards that the testis may not be wounded. The canula is introduced further when the trocar is withdrawn, for a similar reason. When the water has been removed and the canula is withdrawn, a piece of adhesive plaster should be laid over the wound, and a suspensory bandage should be applied.

This operation rarely succeeds in curing the disease. A strong stimulating lotion should be applied immediately after it. Exercise directly afterwards occasionally produces inflammation and a cure. Sir Astley has known a patient cured, by travelling by coach to Manchester soon after the operation. Such exertions are dangerous in old and unhealthy persons. The time of re-accumulation of a hydrocele after tapping is very uncertain. If it re-appear quickly it is a proof of hydropic disposition, and requires calomel and squill at night, digitalis. sp. æth. nit. and camphor mixture twice daily. That the operation is sometimes dangerous was shewn in the case of

an aged gentleman, who took a long walk on the evening of the day on which it was performed. Two days afterwards inflammation came on, gangrene followed, and in a week the gentleman expired, "There are some we must not touch; and some we cannot kill:" Mr. Green, of Lewisham, has published another fatal case of gangrene of the scrotum after this simple operation. The patient was elderly, rather unhealthy, and took a long walk soon after the operation.

Sir Astley cautions surgeons against performing even the slightest operations rashly, and without the most careful precautions. The state of the constitution should always form a prominent object of attention. We would add a remark to this. Let surgeons be cautious how they meddle with old persons, for in them the state of the arteries and the general feebleness of the constitution give a marked disposition to gangrene, and sloughing of the cellular membrane. We have seen an old man perish by low erysipelas, after opening the tunica vaginalis with caustic—an old man died of sloughing of the scrotum and cellular membrane of the abdomen, after the removal of a fatty tumour in the groin—old persons frequently bring on gangrene in the lower extremities by a scratch, or cutting a little deeply on a bunyon—there is a peculiar carbuncular ulcer on the legs of old persons, depending on death, or something like it, of the cellular membrane, exceedingly intractable, and occasionally ending in gangrene—we have seen a middle aged man die of sloughy abscess in the leg, and, on dissection, the femoral artery of that side was almost obstructed by ossification—in fine, not to multiply examples, let surgeons beware how they meddle in the way of operation with elderly individuals. We know that very old men have been operated on with success, but nothing, save urgent necessity, should induce surgeons to touch them with the knife.

Operations for the Cure of Hydrocele. These have been many, some of them severe, others uncertain in their issue. Excision of the tunica vaginalis was formerly practised, but Sir Astley hopes never to witness it again; it was unwarrantably painful in its performance and violent in its consequences, for Sir Astley once saw both scrotum and testis slough after it. Secondly—a tent was introduced into the tunica vaginalis; the adhesions were often partial and the disease was not cured. Thirdly—potassa fusa was rubbed upon the scrotum till its influence reached the tunica vaginalis. Inflammation succeeded, the slough separated, and the cavity of the tunica vaginalis was partly obliterated by adhesion, partly filled up by granulation. When well managed this was a successful operation, but then it required great attention, was occasionally very severe, and a patient of Mr. Cline died from its effects. We have mentioned a similar case. The patient was in St. George's Hospital under the care of Mr. Brodie.

The operations to which Sir Astley has occasionally recourse, are injection—seton—and incision. The object of the first is to produce adhesive inflammation or prevent further secretion; of the two latter to fill the cavity by granulations.

Injection, for which we are indebted to Sir James Earle, has certainly proved a boon to mankind. The apparatus required is an elastic gum bottle, fitted with a brass cylinder to receive a stop-cock, which can be attached at pleasue; a trocar; and a canula two inches long. The usual injection

consists of equal parts of port wine and water, or, if that has failed, two-thirds of wine and one of water. As port wine varies exceedingly in its strength, Sir Astley recommends the use of zinc. sulph., one drachm to a pint of water. One part of sp. vin. to five of water, has also been employed; and cold water often succeeds, but has also failed. The serum drawn from the hydrocele has been injected, but Sir Astley does not much like the choice. Milk was once thrown in by himself; it returned curdled, some of the larger portions remained in the tunica vaginalis, and suppuration was produced. We proceed to Sir Astley's method of performing the operation.

"The patient is to be placed in a recumbent posture upon a sofa or chair, and the surgeon to sit by his side. The tumour is grasped in the surgeon's left hand, so as to render the scrotum tense, and the trocar is to be thrust in gradually and obliquely; it should enter one third from the lower part of the swelling, and be directed, not immediately downwards to the testicle, but a little obliquely upwards. The trocar and canula having entered the tunica vaginalis, the trocar is to be withdrawn; and in doing this the surgeon should not only nip the scrotum, but the tunica vaginalis around the canula, to confine it within the bag; and when the trocar is withdrawn, he is to push the canula to its hilt within the tunic, and the water then escapes into a basin provided for the purpose. The surgeon putting the stop-cock on the elastic bottle, introduces the stop-cock into the canula, and the contents of the bottle are then thrown into the tunica vaginalis, great care being taken to nip the tunic upon the canula. The patient first feels pain in his groin, next near the spinous process of the ilium, and then in the loins; sometimes he complains of uneasiness at the neck of the bladder. The fluid is to be withdrawn at the end of five minutes, and the operation is thus completed." 186.

Sir Astley retains the injection within the scrotum for five minutes in adults, unless the pain be absolutely intolerable. As the succeeding inflammation is not by any means commensurate with the suffering at the time, the injection should not be withdrawn except under urgent circumstances. In young persons three minutes are sufficient. Sir Astley always throws in less fluid than he had withdrawn, and moves it about in the tunica vaginalis, to apply it to every part of the surface. If much be injected the cremaster contracts, part is forced by the side of the canula into the cellular membrane of the scrotum, and sometimes inflammation and sloughing are the consequence. If he finds the testis somewhat enlarged, Sir Astley still proceeds with the operation, for the enlargement is sometimes diminished by it, and does not prevent its success. Much depends on the treatment after the operation. The suspensory bandage is to be forbidden. "If," says Sir Astley to the patient, "you are in much pain, lie down, eat little and drink only diluents—if you suffer little, take exercise, your dinner, and two or three glasses of wine. Come to me to-morrow." If then there be redness of the scrotum, considerable tenderness, and some swelling, the suspensory bandage is to be worn, the exercise moderated, the diet to be light. If there be little appearance of inflammation, grasp the scrotum in one hand, and gently tap it a few times with the other so as to produce slight pain. Exercise and good diet are to be recommended, until the inflammatory swelling be nearly as great as the previous enlargement from the hydrocele. The swelling increases for a week, is stationary for a few days, then declines and in three weeks has subsided. The operation seldom requires more than a few hours' confinement, sometimes a week; patients are generally able

to follow their occupations after four days. Sir James Earle said that he scarcely ever failed; Sir Astley sometimes does so, and would more frequently, were it not for his care in the after-treatment. Sometimes when water is reproduced in a few days after the operation, he removes it by tapping, in order to produce a larger share of inflammation.

Sir Astley has seen suppuration after injection in very irritable persons, and in cases where hydrocele was the result of inflammation not completely subdued before the injection. It has occasioned confinement and delay, and made the operation more painful, but likewise more certain. Sir Astley performed injection on one side, for a young man with a hydrocele on both, and he walked a distance of two miles home. Suppuration followed. Sir Astley injected the other hydrocele and made the patient keep his bed, yet again suppuration occurred. When cysts grow between the tunica vaginalis and albuginea, the operation will necessarily fail occasionally. If the tunica vaginalis be previously divided into different cavities by adhesion, the operation will affect no more than the particular bag injected. Sometimes the injection is thrown into the cellular membrane of the scrotum, and extensive sloughs, nay, even death, are the consequence. A dresser at Guy's Hospital obtained the permission of the surgeon to inject a hydrocele. He threw in the fluid with great difficulty, the man complained violently, the injection could not be withdrawn, inflammation and gangrene ensued, and the patient died in a week. The canula had not passed into the tunica vaginalis. If the canula does enter it, but is not confined in it by pinching the tunic around it, the same disastrous consequences will follow, as Sir Astley has often had occasion to observe.

The cure is generally effected by the effusion of serum and fibrine into the tunica vaginalis. The serum becomes absorbed, the fibrine glues the sides of the tunic together, and at length it is in great degree absorbed also. Mr. Headington dissected a hydrocele that had been injected, and the tunic adhered. It is in cases in which it does not adhere, that the disease is apt to return. This effusion, however, is not necessary to the cure, which sometimes appears to be produced by a change of action in the vessels. Sir Astley cured a hydrocele by injection. Some years afterwards the patient died, and on dissection it was found that the tunic had adhered very partially; it was more relaxed than usual, but contained no water.

Operation by Incision. When obscurity hangs over the nature of the case with respect to its connexion with hernia, or with some disease of the testis, it is occasionally necessary to open the tunica vaginalis. This was one of the earliest operations for hydrocele, but it often failed, in consequence of the two surfaces of the tunica vaginalis not coalescing. To obviate this uncertainty, Mr. Hunter introduced some extraneous body within the cavity. He began an incision at the upper part of the swelling and extended it two-thirds downwards, for, if lower, the testis is liable to exposure and inflammation. The water then being discharged and the state of the testis ascertained, a little flour was sprinkled in the wound, and thus the surface was forced to granulate. The operation was very certain, but very severe. It should only be resorted to in cases of great doubt concerning the state of the testis. In one case, Mr. Chandler introduced lint instead of flour, into the tunica vaginalis. Great constitutional irritation fol-

lowed, and the patient sank. After the operation, a poultice only should be applied. Some have excised a portion of the tunica vaginalis, but this operation has proved uncertain, and is not now performed in England.

Operation by the Seton. When hydrocele in young children will not yield to stimulating lotions, Sir Astley passes a common curved needle and thread transversely through the middle of the hydrocele, including about an inch and a half of integument and one inch of tunica vaginalis. He then ties the thread in a knot, leaving it hanging loosely in the tunica vaginalis and scrotum. No confinement is necessary. In about a week inflammation is established, and then Sir Astley withdraws the thread, when the adhesive inflammation produces the cure. Sir Astley occasionally performs the same operation in the adult, when injection has not occasioned sufficient inflammation, and before the latter has entirely subsided.*

V. HYDROCELE OF THE SPERMATIC CORD.

This disease is an accumulation of fluid in the sheath of the spermatic cord. It is rather rare: When the testis descends from the abdomen, the cord is closely invested by peritoneum which adheres to its vessels. The portion of peritoneum which descends before the testis from the lower part of the abdomen, does not at first adhere to that which is closely united to the cord, but a channel admitting of a probe is left between them. After a time there is adhesion of the tunica vaginalis, from the internal ring nearly to the testis. Sometimes it happens that in parts of the cord the adhesion is incomplete, and then a space is left in which a slight secretion proceeds; if this be increased, a hydrocele of the cord at this part is the consequence. A similar swelling may be produced by an accumulation of fluid in a cyst in the cord.

This swelling, when seated below the ring, is easily distinguished. It is

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* We may here introduce the substance of a letter from Mr. Caddell to Sir Astley Cooper, on hydrocele as it occurs in the West Indies. It is found in the Appendix to the present work.

"Hydrocele is a very frequent disease in Barbadoes, but not the every-day disease that perhaps you have been led to believe. I think the cellular membrane of the scrotum is generally more thickened than in hydrocele here. I think the epididymis and cord are much more apt to be varicose or thickened. Persons in general suffer their hydroceles to grow larger, before seeking relief from them. Injection is as successful in Barbadoes as in England. It was a matter of indifference to me whether I used Solution of White Vitriol, or diluted Port Wine. I have injected hydroceles of three pints successfully; but beyond that size, and even for that size, I preferred Caustic.

Wherever the fluid varied *very much* from the ordinary fluid of hydrocele on first drawing off, and collected again, or where the tunica vaginalis has been filled with blood after the first drawing off, I have used Caustic. I have lost a few patients from erysipelas—a few from tetanus: the latter I believe is a danger unknown here; but in Barbadoes it occurs often enough to make a man avoid operations of every kind as much as he can. Cancer and pulpy testis are the ordinary diseases of the testis; but not more common than in England. Elephantiasis affects the scrotum. I have relieved the scrotum when immensely large, by pressure with adhesive plaister."

globular, of a light blue colour when grasped and raised, very transparent, firm to the feel, unattended with pain, rarely of considerable size, and merely an inconvenience to the patient from the impression it produces on his mind. When seated in the inguinal canal, above the ring, the diagnosis is very difficult. Like hernia, it disappears under pressure, is very apparent in the erect and almost gone in the recumbent posture; but there is no pain, no gurgling, no interruption to the bowels in consequence of the tumour.* The disease feels like a bullet lodged in the cord. If left to itself it increases, and at last emerges from the ring, when its transparency decides its nature. On dissection the bag is found covered by the cremaster, and the water is contained between the two portions of the tunica vaginalis of the cord, which are greatly thickened, and have no communication with the cavity of the tunica vaginalis of the testis.

In the treatment of this disease injection is difficult, and the complaint is apt to return. In a case in which injection twice failed, Sir Astley succeeded by making an incision and introducing flour; two abscesses formed during the cure. In a case at present in St. George's Hospital, a cure has been nearly effected by making an incision, and dressing it with lint. By the way, it is curious that no less than four cases of hydrocele of the cord have occurred at that hospital within this month. In one case the patient, a boy, declared that it appeared suddenly after being thrown from a cart. By rest and the ammon. mur. lotion it disappeared, but returned on the patient's resuming exercise. We believe that it was a second time dispersed by the means which answered at first. A seton, made by introducing a common curved needle carrying a single silk, is a very lenient cure. Sir Astley is of opinion that a hydrocele sometimes forms on the cord from a secretion proceeding into a hernial sac, shut at its orifice to the abdomen; the fluid is then colourless. Sir Astley inserts an amusing case, to show the difficulties of diagnosis; this will be noticed in another place.

VI. Inflammation of the Tunica Vaginalis.

By inflammation, effusion is produced into the tunic; if it proceed, fibrine mixed with serum is poured in, and the two portions of the tunic coalesce. If the inflammation be immediately subdued, the effused matter is absorbed in part or in whole; but if it continue for some time, the adhesion remains, and produces many of those indurations perceived after inflammation of the testis and its tunics. If the posterior or lower part of the epididymis have a knot in it, it has arisen from inflammatory condensation of the cellular tissue uniting the convolutions of the vas deferens. If a hardness is felt on the surface of the testis, it indicates the existence of partial adhesion and thickening of the tunica vaginalis. In one case Sir Astley found, in addition to these, adhesive matter poured into the substance of the testis in two situations, the larger part at the rete. When the two portions of the tunic adhere, injection passes through the new matter,

* We have remarked on a former occasion, that this diagnostic mark is to be received with the understanding, that symptoms of intestinal obstruction or inflammation may be accidentally combined with the tumour. Such a circumstance has occurred more than once within these few years.—*Rev.*

which is organized. The only bad consequence of these adhesions is, that the testis does not slip so readily out of the way of injury or violence.

The treatment of acute inflammation of the tunica vaginalis is the recumbent posture, support of the part, leeches, and evaporating lotions. The hydrocele following it often disappears under the use of stimulating lotions. Suppuration of the tunica vaginalis is very rare, except as a consequence of hydrocele, and its treatment. It is, however, the natural cure of hydrocele, when the bag is excessively distended; for suppuration and ulceration ensue, the water is discharged, and the cavity fills up by granulations.

Chronic inflammation of the tunica vaginalis, producing an effusion of water into its cavity, is seen in the inhabitants of warm climates, and more especially in those of the West Indies. The same effect is produced in persons subject to disease in the urethra and prostate; and indurations, apparently of the epididymis and testis, but often in reality of the tunics only, with small collections of water, ensue. In performing operations for such hydroceles, Sir Astley has found the tunica vaginalis so extremely thickened that, when opened, it has remained separated from the testis, and has been as stiff and thick as wetted parchment. The contained fluid is sometimes of a white appearance and opaque; if suffered to remain in the vessel into which it has been drawn, it precipitates numerous white flakes of adhesive matter, whilst the water above it is clear and colourless.

It is chiefly chronic inflammation of the tunica vaginalis which leads to the variety in the situation of the water in hydrocele, and to the danger of wounding the testis with the trocar. In these cases cysts are formed in various directions, and the testis therefore loses its usual situation with respect to the effusion. In these cases also incision is occasionally required, when obscurity hangs over them from opacity of the tunics, and when more than one bag containing water has been formed.

VII. Cartilaginous Bodies in the Tunica Vaginalis.

In dissecting persons labouring under hydrocele, we find little loose bodies floating in the serum. They are sometimes numerous, more frequently two or three in number, sometimes only one. They appear at first sight like cartilage; on more attentive examination they are found to be cartilaginous on their surface, but ossific internally. In this respect they resemble the bodies found loose and pendulous in joints. In some cases Sir Astley was unable to discover from whence they had been formed, although there were marks of inflammation and adhesion in the tunica vaginalis.

In other cases our author has seen them produced in two ways. First.—They formed pendulous bodies, hanging from the epididymis and testis, covered by the tunica vaginalis; when the stalk becomes small, they fall or are broken off by the motions of the testis and the pressure to which they are exposed. Of this variety Sir Astley has given a plate. Secondly,—They are produced upon the surface of the testis, between the tunica vaginalis and albuginea, in a cyst which, when opened, contains one of these little solid bodies, pendulous from its internal surface. The rationale is not difficult. Chronic inflammation produces an effusion between the tunica vaginalis and albuginea; it projects and is pendulous; becomes vascular from the tunics; and in it, cartilage is first, and ossific matter afterwards

secreted. It is a curious circumstance that all the serous and sero-fibrous membranes have a disposition to form cartilaginous and earthy matter. Probably it depends on the general fibrous character of their inflammatory effusions. Sir Astley has never been able to detect the existence of these substances in the living body.

VIII. Ossification of the Tunica Vaginalis.

This is rare. When found, it is usually the concomitant of old hydrocele, for Sir Astley has only seen one case in which they did not exist together. The earthy matter is thrown out in patches of various size; in one preparation at Guy's Hospital, it has been deposited in the form of numerous spiculæ.

A portion of the ossific matter was sent for analysis, from Sir Astley to Mr. Barry, of Lombard-street. When divested of membrane, and dried, 100 parts consisted of—phosphate of lime 45—carbonate of lime, with a trace of magnesia, 17—animal matter, 38.

The tunica albuginea undergoes a similar change of structure. These deposites are the consequence, no doubt, of chronic inflammation. Of this, diseases in the urethra are the most frequent cause, and attention to the state of that canal is the principle to guide our treatment.

IX. Fungoid Inflammation of the Tunica Vaginalis.

The only information offered by Sir Astley on this subject is in the shape of a case attended by Mr. Brodie and himself. The disease must be extremely rare.

Case. Mr. T. æt. 60, rather bloated and unhealthy, had for fifteen months observed a swelling on the left side of the scrotum, unattended with pain, but accompanied by water in the tunica vaginalis. Mr. Brodie employed the mercurial treatment, leeches, and the recumbent posture with little effect. The tunica vaginalis was then punctured, and about two ounces of fluid drawn off; the treatment was still pursued; the water was removed a second time; but still no improvement was perceived. Sir Astley was consulted and recommended perseverance in the same mode of treatment. After a lapse of several weeks, Sir Astley and Mr. Brodie agreed to remove the part, if, on puncturing, the fluid should be found to be inconsiderable. A lancet was passed into three different parts where fluctuation seemed distinct, but no fluid issued. Mr. Brodie then removed the testis.

On dissection the testis was perfectly sound. The vas deferens could only be injected to the beginning of the epididymis, which was drawn to a great length by the swelling and terminated in a membranous cord. The cavity of the tunica vaginalis was occupied by a spongy effusion, having all the character of incipient fungus. The tunica vaginalis was thickened and had a large piece of ossific matter in it. The cord was unaffected.

The patient died of erysipelas, and on examination his body was found in other respects free from disease.

X. ON HÆMATOCELE.

Hæmatocele is a collection of blood in the tunica vaginalis testis. The swelling is pyriform like hydrocele, not painful, does not affect the general health, is attended with slight fluctuation, is not at all transparent. It is distinguished from hydrocele by its greater weight, its want of transparency, its obscure fluctuation, and its being usually the consequence of a blow. On dissection, the tunica vaginalis is found excessively thickened. The blood, which is coagulated, is coffee-coloured, and if a fluid be contained with it, that assumes the same appearance. The blood in the tunica vaginalis is found in three conditions according to circumstances. First—it is entirely coagulated. Secondly—some fluid blood is found with the coagulum, when the swelling is extremely tense, and, if opened, bleeding is apt to recur from the orifice of the vessel, after the pressure is removed. Thirdly—when the disease has been accompanied by inflammation a serous fluid is secreted.

Case. Mr. N., was brought to Sir Astley, with a pyriform swelling of the scrotum, as large as a double fist. The testis and epididymis could be felt at the lower part of the swelling, and above it, as high as the ring, a solid substance united with a fluid was perceived. It was not transparent, and occasioned no inconvenience, excepting from its size and weight. It had existed seventeen years, and was attributed to a blow from the pommel of the saddle, received in hunting. Sir Astley opened the swelling at his house, and discharged a coffee-coloured fluid blood, with a solid substance of a brownish yellow colour. The tunica vaginalis was as thick as the thickest parchment. Sir Astley introduced a piece of cotton wool, and the patient went three miles to his home, in a coach. On the same day, whilst sitting in his counting-house, he was seized with a profuse hæmorrhage from the tunica vaginalis, and fainted. Violent constitutional irritation followed, with suppuration of the tunica vaginalis. Warm poultices and the magnes. sulph. with liq. ammon. acet. were employed. About the third or fourth day large clots of blood came away, and were followed by profuse discharges of pus, when the febrile symptoms subsided. The discharge continued for some time, then ceased, and in six weeks after the operation the patient was perfectly well.

Hæmatocele now and then follows tapping in hydrocele, especially if a lancet be employed. A surgeon tapped a patient twice for hydrocele. Two months after the performance of the last operation, he returned with the swelling somewhat rounder than before. It was again tapped and a pint of thick bloody fluid drawn off. In a fortnight the swelling reappeared, but is gradually subsiding.

Hæmatocele is often connected with hydrocele, and is a consequence of it. A man received a severe blow upon an old hydrocele, which bruised the scrotum, made the swelling increase suddenly, and occasioned great pain. Sir Astley made an incision into it, and discharged a large quantity of water and coagulated blood. There was a rent one or two inches in length in the tunica vaginalis, covered with coagulum. Dr. Saunders had a hydrocele which was occasionally tapped. He struck the scrotum against the back of a chair, and the hydrocele, as he imagined, returned. Mr. Lucas

tapped it, but no water passed. Mr. Cline made an incision into the tunica vaginalis, which was found full of blood; a poultice was applied, and the Doctor soon recovered. Sir Astley mentions another case, but this we need not detail here.

Hæmatocele is not always produced by a blow. Sir Astley attended a gentleman with a large pyriform swelling in the left tunica vaginalis, which had never been painful, had obscure fluctuation, and was not transparent. Sir Astley made an incision into the tunica vaginalis, and discharged nearly a pint of fluid blood. This swelling had not succeeded a blow, but the gentleman had been in the habit of making great exertions.

In the collection at St. Thomas's Hospital is a hæmatocele, for which the testis was removed by mistake. The surgeon who removed it had not even the curiosity to examine it, but when Sir Astley cut into it, he found the tunica vaginalis extremely thickened, and filled with coagulated blood of a brownish red colour. The testicle was placed at the posterior and inferior part of the swelling.

Treatment. This must vary according to the manner in which the disease is produced. If occasioned by a blow and unaccompanied by hydrocele, the patient must observe the recumbent posture, apply leeches, keep the bowels open, and, if there be much pain, we must even take away blood from the arm. The liq. ammon. acet. and sp. vini ought to be applied to the part. If connected with hydrocele, unless there be much inflammation, the best plan of treatment consists in making an incision into the part, discharging the contents of the tunica vaginalis, and, without introducing any foreign body, leaving the case to the natural process of inflammation. When it occurs without any apparent cause, there is something wrong in the constitution, requiring attention as well as the local disease. There is generally visceral disease, especially in the liver, sometimes obstruction to the circulation through the chest. When this has been remedied by medicine, an incision may be made into the tunica vaginalis. The recumbent posture is in this case very essential in preventing bleeding after the operation. In hæmatocele it is particularly necessary to cut into the tunica vaginalis, to examine the state of the testis, as castration has often been performed when the latter was perfectly sound.

Excessive irritation sometimes follows the operation. A gentleman had a hydrocele on both sides. The water was drawn off from the right side by a lancet, but in a few days the swelling was larger and harder than ever. Two years afterwards, he was seen by Sir Astley. The swelling on the right side was not transparent; on the left it was. Sir Astley suspected hæmatocele, and punctured the tunica vaginalis, when fluid blood of a coffee-ground appearance was discharged. The tunica vaginalis was extremely thickened, but the testis appeared to be sound. Dangerous irritation followed, but the patient ultimately recovered.

We have seen the most severe irritation produced by the operation for hæmatocele, but the patient was finally cured. A curious case happened lately to Mr. Hawkins at St. George's Hospital. A man had long suffered from hydrocele on the left side, which had frequently been tapped. In walking he squeezed the testis between his thighs, a sudden swelling took place, and he fainted; the tunica vaginalis had given way, and the hydro-

cele had got abroad into the neighbouring cellular membrane. Great ecchymosis of the scrotum, thighs, and hypogastrium followed. The rent in the tunica vaginalis healed, and Mr. Hawkins introduced a trocar; the opening was instantly blocked up with coagulum. Irritation and fever followed. The tunica vaginalis was laid open by incision, and much coagulated blood with coffee-coloured fluid found in it. It was dressed in with lint—some sloughing succeeded—then suppuration—and, ultimately, the patient was discharged, with only a small sanious opening in front of the scrotum. The cord remained much thickened—the testicle, though adherent to the scrotum anteriorly, was sound.

XI. ON VARICOCELE.

Various causes conspire to produce more distention of the spermatic veins at one time than another. Among these may be enumerated the erect position; relaxation of the body from heat or weakness, for which reason the inhabitants of warm climates are very subject to varicocele; corpulency, in which the fat of the mesentery and omentum prevents the free return of blood in the veins; pressure from dress, or a belt round the abdomen. It occurs more frequently on the left side than the right, for two reasons. In the first place, the spermatic vein of the left side, instead of ending in the vena cava, like the right, terminates in the left emulgent, nearly at right angles with the stream of blood from the kidney. In the second place, the left testicle usually hangs lower than the right, and hence the veins are somewhat larger, and the height of the column of blood is greater. Whatever be the cause, the diameter of the veins on the left side is increased, they become more tortuous, and their coats are thickened.

Varicocele can scarcely be termed a disease, for in the majority of instances there is neither pain, inconvenience, nor diminution of the virile powers. A gentleman of Sir Astley's acquaintance had a slight hydrocele on one side and a varicocele on the other, yet he married and had a numerous offspring. In a few cases it produces uneasiness in the loins and in the course of the cord. The patient's mind, however, is distressed by it. He thinks he has a serious, or an effeminating disease, and consults one surgeon after another, till time and experience teach him his error. Sir Astley has now and then seen the disease on the right side only, very rarely on both.

Dissection. All the veins are enlarged, and so much elongated, that the vein in the course of the vas deferens reaches much lower than the testicle itself, which is thus seated on its fore part, whilst much of the varicocele lies below it. The coats of the veins are also thickened.

Diagnosis. Varicocele may be confounded with hernia. Like hernia, it fills from the abdomen and descends; increases in the erect, and almost disappears in the recumbent posture; and if large, becomes distended when the patient coughs, though the latter symptom is not usually very distinct. Unlike hernia, it feels like a bag of worms in the scrotum, between which the fingers will sink and meet, instead of being a smooth and uniform swelling; it is also unattended with interruptions of the bowels, and with the gurgling of intestinal hernia. The main and convincing point of distinction is this. The patient being recumbent, and the testicle elevated

till the veins are emptied, the surgeon places his finger at the abdominal ring, and the patient is directed to rise ; all hernial descent is of course prevented, but the varicocele again appears, in consequence of the blood getting into the veins through the spermatic arteries. This will even take place if the patient does not rise at all. Notwithstanding the simplicity of the diagnosis, Sir Astley has again and again seen trusses applied for this disease, with the most pernicious effects.

Treatment. The indications are, to prevent the increase of the varicocele and remove the existing inconvenience. First—The part should be supported in a silk-net suspensory bandage, to lessen the column and weight of blood. Secondly—The clothes should be thin and light, to keep the part as cool as possible. Thirdly—All pressure from the clothes on the abomen should be prevented. General cold bathing is useful, and the patient should bathe the part night and morning with cold water, in which a mixture of nitre and muriate of ammonia are dissolving. If the veins be very large, blisters applied to the scrotum are useful. But in general it is best to relieve the patient's mind of all uneasiness and chagrin, and only recommend the mild measures enumerated above. Probably one person in every twenty has varicocele in some degree.

It occasionally happens that persons suffer great pain in the testis and loins from a varicocele, and then it has been proposed to cut down on the spermatic vein and place a ligature upon it. Sir Astley dreads such an operation, for on several occasions he has seen death ensue from meddling with the veins of the extremities. In cases of very large varicocele, accompanied with pain, the removal of a portion of the scrotum would lead to a diminution of the veins of the cord, and might be advantageously employed. It is even occasionally necessary to remove the testis for varicocele.

Case. T. H. aged 18, was admitted into Guy's Hospital with a large varicocele on the left side, attended with considerable pain, referred chiefly to the loins. The testicle was soft, smaller than the other, and painful on being handled. The disease had originated three years previously, from a blow on the pommel of a saddle, which bruised the testis, and produced for a few minutes excruciating pain. He had suffered little inconvenience from the varicocele, till within six months preceeding his admission. At the patient's earnest and decided request, castration was performed, after the employment of local sedatives, leeches, the horizontal posture, and alteratives had been tried in vain.

The last chapter in this admirable work is on the

XII. Chimney Sweeper's Cancer.

The soot harbouring in the wrinkles of the skin, where the cuticle is thin and the cutis highly vascular, produces irritation and ulceration so much resembling cancer as to have received that appellation. It certainly bears a strong resemblance in many points to cancer of the lip. Sir Astley has only seen it on two parts of the body, the scrotum and the cheek. On the former it is frequent, but Sir Astley has witnessed it but twice upon the latter. In one case the sore was seated in the centre of the cheek in a very old man, the

wrinkles of age upon his face having formed a nidus for the soot. In the second individual, the disease began on the cheek near the angle of the mouth, and extended both to the upper and under lip. Mr. Keate informed Sir Astley that he had known an instance of the disease in the cheek. Within these two months there have been, in St. George's Hospital, two instances of chimney-sweeper's cancer, commencing in the groin. One patient was an adult, under the care of Mr. Babington; the other a boy, now under the charge of Mr. Brodie.

The first appearance of the disease is a wart upon the scrotum, which seems broken on its surface. On this an incrustation forms. If this be rubbed away or picked off, the papillæ on the surface of the wart appear excoriated, red, and broken, and give issue to a slight discharge. An incrustation forms again upon the wart, and remains until accident or ulceration remove it, when the surface is highly vascular, and discharges a bloody serum. Still the surface becomes incrusted, till at length an ulcer of some extent forms under it. The sore is hard; its edges are indurated and everted; its surface is unequally vascular, so that it is yellow in some parts, red in others; and it discharges a bloody serum, often of offensive smell, though a purulent discharge is sometimes observed. We have seen the origin and progress of the disease somewhat different from this. It began in a small lump, not warty, beneath the skin; this enlarged; was poulticed, and opened with a lancet; blood only was discharged; an ulcer formed; and then it assumed the characters described by Sir Astley. Such at least was the history given by the patient in St. George's Hospital, to whom we have alluded. It must be recollected that in those individuals the groin, and not the scrotum, was affected, and there was much surrounding glandular enlargement.

At first the patient rather complains of a troublesome itching than of pain, but, as the disease advances, darting pinching pain, with heat, shoots through the part, as in most diseases of specific nature. The ulcer proceeds, reaches the tunica vaginalis, hardens it, and affects the surface of the testis. When ulceration has become extensive, one or more of the absorbent glands in the groin grows hard and swollen: it inflames, is poulticed and fomented, breaks and discharges some pus with a bloody serum. The glands slowly ulcerate with a hardened surface and everted edges, discharging serum from some parts, a curd-like matter or white sloughs from others. At length ulceration has formed a deep chasm in the groin, or an extensive sore. If the former, the femoral vessels, or a large branch of them, are exposed and ulcerate, and life is lost by a sudden hæmorrhage; if the latter, the patient is slowly exhausted by irritation and discharge. The scrotum is in some cases nearly destroyed by ulceration. If the parts are removed by operation and dissected, it will be found that the surface of the cellular membrane surrounding the ulcer is filled with a white scirrhous substance, imperfectly vascular, and presenting much the same appearance as the cancer of the lip. The glands in the groin are enlarged and hardened—they contain a white solid in some parts, a soft white curd-like matter in others—here they are highly vascular, there they have no vascularity whatever. Sir Astley has known the disease occur at various ages, from 26 to 80 years. Mr. Brodie's patient, at present in St. George's is a boy.

"From the number of persons who pursue this occupation, and the comparatively few affected by the application of soot, it would appear that there is something, either in the constitution or the parts of some individuals, which disposes to its production. I am inclined to believe that it depends more upon local circumstances than upon the constitution, because the subjects of it appear to be very healthy at the dawn of the disease, although they lose that health in the progress of the complaint. Some of them are, it is true, very intemperate, and are thus rendered irritable. But I believe that it is a thin cuticle, and an irritable skin, which permit the soot to produce its peculiar irritation and effusion; and that it spreads both by simple extension of surface, and by the irritation of the absorbent glands." 229.

No medicines that have yet been tried possess any power over this disease; neither can we heal the sore by local applications. Only two modes of procedure remain—to destroy it by sloughing, or remove it by excision.

A drachm of the oxyd of arsenic, well mixed with one ounce of the ceratum cetacei, is to be thickly spread upon lint, and applied to the sore for twelve hours; it is then to be succeeded by a poultice. A slough is produced by the arsenic, which separates in a few days, and leaves a healthy surface; but if any of the malignant leaven remain, the arsenic must again be applied, until an entirely new surface be produced. If the glands are enlarged and hardened, the caustic will do them harm and ought not to be applied. To remove the disease by the knife is a simple piece of dissection. Enlarged glands in the groin must not positively forbid the operation, for sometimes they are affected by irritation only, and, as excision of part of the scrotum is neither very difficult nor attended with danger, the patient should be offered the chance which it affords. If the tunica vaginalis is implicated in the disease it will require great caution in its removal, to avoid injuring the testis.

After the removal of the diseased scrotum, the vessels, though small, are apt to bleed freely, and the hæmorrhage is not readily stopped by pressure. Every vessel which bleeds should be tied, no dressings ought to be applied to the part, the patient should be kept cool and in the recumbent posture; the scrotum will then contract. When the bleeding has ceased, the edges of the wound may be brought together by sutures.

Sir Astley concludes by referring to a paper on this subject by Mr. Earle, in the Medico-Chirurgical Transactions.

We have now concluded the division of Sir Astley Cooper's work, which treats of the Diseases of the Testis. Our readers will have seen that our object has been analysis, not criticism; we may say that a closer or more careful analytical review was never offered to the medical public. In little more than fifty pages of our type, the professional reader is presented with the substance of two hundred and forty-five of the able author's volume. Every thing is condensed, but every thing is here. Like hammered metal, the value and the strength remain, though the bulk has been diminished by the labours of the smithy. Our readers may, from this analysis, perceive the absurdity of the attempt to strike off in a few pages, an effective and useful review of any valuable work. Critics may give us a short remark and a long quotation; but beyond this they cannot pretend to go, without deluding themselves or others. A medical review, to prove useful, should be chiefly analytical; and for such analysis, space, time, and labour are

required. Away then with the farce of affecting to put a review in a corner; of making it a small and inconsiderable department. A notice this may be, too often an advertisement, inserted by a friend; but a review it is not.

It may be expected that, on parting with our able author, Sir Astley Cooper, we should offer a summing up. It is unnecessary. There is but one opinion on this work, there can be none other. It is one of the most valuable contributions to practical surgery, which the nineteenth century has witnessed. Every page, every line stamps the able practitioner, the acute observer, the indefatigable treasurer of facts. It is by these, that Sir Astley Cooper has risen to his present eminence;—by noting what he has seen, not by revelling in what he has imagined. Such men as Sir Astley Cooper and Mr. Brodie have not electrified the world by brilliant hypotheses, which flare for a season, dazzle men's eyes, and go out; they have studied cases closely; have noted what they saw; have become in consequence first-rate practitioners; and will, we trust, prove severally, ere the course of nature shall have consigned them to the tombs of Cline and the Hunters, benefactors by their writings to mankind.*

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* In our last number, whilst reviewing the able work of Sir Astley Cooper on the Diseases of the Testicle, we made the following remark on the "hydatid disease" of that organ.

"We are afraid that Sir Astley has overrated the mildness and local character of this affection. In a case at St. George's Hospital, in which castration was performed by Mr. Brodie on a testicle exhibiting the hydatid disease, death from peritonitis ensued, and an opportunity was afforded of examining other parts. The lumbar glands *were* affected in a similar manner with the extirpated testis."

Since this was written we have found that we were in error. Sir Astley Cooper has kindly shewn us his preparation of the hydatid testis, and we have taken the opportunity of comparing it with that from Mr. Brodie's patient. They evidently represent different diseases. In Mr. Brodie's the cysts are few and small, and separate small cysts have fallen from their interior. The cysts, too, are deposited in a yellow fibrous sort of substance, and the structure of the testis is expanded around it.

The testis in the cabinet of Sir Astley Cooper, on the contrary, consists of innumerable cells, divided from each other by membranous partitions. They contain no loose cysts within them. There is no new fibrous or other deposit, and no vestige of the structure of the testis remains.

The differences between the two preparations are obvious, and it gives us much pleasure to acknowledge our error. We did not question the accuracy of Sir Astley Cooper; who could do so? We are happy to find that a fact which seemed to militate against his conclusions has proved confirmatory of their soundness and value. We might almost say, that we are proud of being proved in the wrong by such men as Sir Astley.—*Rev.*

II.

Recherches Experimentales sur les Fonctions du Systeme Nerveux Ganglionnaire, &c.—That is :—Experimental Researches respecting the Functions of the Ganglionic System of Nerves, and their Application to Pathology By *M. Brachet*, M. D. Octavo, Paris, 1830.

The work itself not having reached us, we are indebted to a very able analysis of it, drawn up by Dr. Sandras of Paris, for the present notice; and we conceive our readers will not regret the perusal of this article, the subject being very interesting. We may glance at our actual knowledge of the functions of the ganglionic system, prior to the publication of Dr. Brachet's work.

Willis regarded this system as a nerve placed between the perceptive function of the brain and the involuntary actions of the viscera. Vieussen's opinion was nearly similar. Lancisi regarded the ganglia as having a function somewhat analogous to that of the heart—namely, that they accelerated the movements of the nervous fluid. According to Winslow, the ganglia are so many little brains, or separate origins of the grand sympathetic nerve. Meckel believed that they produce the division of the rami into ramusculi, or filaments, and regulate the destination of the latter—and also that they unite several rami into one fasciculus. Zin partakes of the same opinion, and adds that the different rami are completely confounded in the ganglia, and never go out in juxta-position, as from the plexus. Scarpa coincides with Meckel and Zin, and traces their origin to the spinal marrow and to the fifth and sixth pairs. Bichat illustrated the views of Winslow, and referred the ganglionic system to the "organic life." Reil remarks that the great sympathetic nerve exists alone in some classes of animals, while in others of a superior nature, there is added the cerebral system of nerves. He maintains that every part of the ganglionic system is originally formed in the spot where we find it, which is not the case with the cerebral system. He sees the ganglionic nerves accompany and envelop all the vessels—send conductors to the cerebral system, and thus put into communication with each other the two otherwise isolated systems of nerves. Thus voluntary life belongs to the brain—involuntary to the ganglia system. This last is devoid of common sensation in health; but when deranged, its character changes, and it becomes the conductor of sensations. "Animal magnetism (says Reil) establishes also a communication of sensations between these two spheres. Numerous examples prove that people have seen through the epigastrium." Wilson Philip believes that the ganglia serve as reservoirs for the concentration of the nervous power, flowing from the brain and spinal marrow. The views of Broussais are difficult to understand, and we pass them over. Lobstein has written an elaborate work, "De Nervi Sympathetici Fabrica et Usu." He observes that we perceive a ganglionic system in the invertebrated animals—that, in the lowest ranges of these, we see only a nervous mass serving the purpose of nutrition, whilst in others, a little more elevated in the scale, additional masses are appended :—In animals still higher, the ner-

vous matter of organs superintending motion and feeling, is concentrated in one mass, the brain—where ganglia disappear;—and where, on the contrary there is a ganglionic system appropriated solely to the organs of nutrition.

"No doubt (says Lobstein) the grand sympathetic, like the nerves in general, is the source of the vital principle, in the parts to which it belongs —preserving their tone, and distributing to them energy and action. This nerve presides over nutrition, secretion, and the circulation—is the link of union between the intellectual and organic functions, &c."

But it is time to proceed to the work of M. Brachet himself.

SECT. I.—GENERAL FUNCTIONS.

There is no function without agents, without instruments. There is no bile without a liver—no sensations without nerves. All organs feel—and therefore all organs have nerves. But vegetables also have sensibility. They have the functions of absorption, nutrition, exhalation, circulation, generation, and destruction—they only want *digestion* to bring them pretty nearly on a par with animals. All these last have a ganglionic system—and vegetables, M. Brachet thinks, have their's—the medulla or pith. The various experiments and arguments in proof of this we must pass over. According to this author, there are no such things as vital powers or properties—"il n'y a point de propriétés vitales"—these are the results of the actions of organs, in a word, their functions—and he thinks it would be true physiology to admit, instead of these assumed vital powers—1mo, perceptible sensations, (through the medium of the cerebral nerves)—2do, non-perceptible sensations, (through the ganglionic nerves)—3tio, muscular contraction, *voluntary* in the loco-motive muscles—*involuntary* in the muscular fibres of the viscera—4to, capillary contraction.

He would wish, to discard all ONTOLOGY in physiology as in medicine —and that we should only see in the healthy living body, tissues, organs, and fluids—in diseases, only an alteration in these principles.

SECT. II.—SPECIAL FUNCTIONS OF THE GANGLIONIC SYSTEM.

M. Brachet only adverts to the principal functions of this system—first, as to the heart—2d, as to the respiration—3d, as to the stomach—4th, as to the intestines—5th, as to the bladder—6th, the organs of generation—7th, the secretions—8th, the sympathies—9th, vision—10th, various passions.

I. THE HEART. This important organ receives a number of nervous filaments from the great sympathetic—a few from the pneumo-gastric. On removing the cerebrum and cerebellum, the motions of the heart are not arrested. If death takes place suddenly when we remove the origin of the pneumo-gastric nerves, it is by asphyxia, and life may be prolonged for some time by artificial respiration. From experiments and reasoning M. Brachet comes to the conclusion, contrary to Legallois, that the spinal marrow itself does not govern the motions of the heart. He has pushed a wire *slowly* through the spinal marrow of animals, and has not affected the

heart's action till the instrument reached the cauda equina. Anatomical researches have proved, he thinks, that the brain and spinal marrow are formed posterior to the heart, and consequently after the motion of that organ has commenced. Fœtuses have lived seven or eight months without spinal marrow. Numerous experiments have shewn that the heart's action goes on for days after section of the pneumo-gastric nerves. The trouble of function in the heart, consequent on these operations, results from the consent between the two systems of nerves. That the heart's action is kept up by the grand sympathetic is proved, in Dr. B's opinion, by several experiments—among others, the following. He divided all the filaments going from the internal cervical ganglia to the cardiac plexus. Sometimes the action of the heart ceased completely—sometimes it ceased for a moment, and then re-commenced. Surprised at this diversity of result, M. Brachet knew not what to think; but reflecting that the ganglia were all isolated, and, as it were, independent organs, he concluded that he must attack the cardiac ganglion itself. This he did. The operation is difficult, but whenever he was able to remove the ganglion entirely, the action of the heart ceased instantly. When it was only partially removed, the action of the heart went on for some time. The nervous system, then, of the heart commences with the cardiac ganglion, as was observed by Ackermann and Malpighi.

II. Influence of the Ganglionic System on the Lungs. On section of the par vagum, animals die tranquilly, and without any efforts to breathe, when immersed in water, in a vacuum, in azotic gas, which is not the case with those animals who are so immersed, but with the said nerves undivided. On destroying the origin of the eighth pair, the respiration is at once suspended, although a canula is kept in the trachea. Acephali and anacephali that have breathed after death, have the eighth pair of nerves —those who do not breathe after coming into the world, do not possess the said nerves. The author, however, relates an experiment where section of the pneumo-gastric nerves, without tracheotomy, was followed by violent efforts to breathe. He accounts for this contradictory phenomenon, by supposing that the *habit* of the respiratory muscles is continued for some time after the nervous power is cut off. By various experiments, he comes to the conclusion that, after section of the eighth pair, animals die from the accumulation of mucus in the bronchial tubes, from inability to expectorate it. The blood cannot then be oxigenated, and the animal succumbs from engorgement of the lungs. The muscles of the chest are, of course, under the influence of the cerebro-spinal system; but sanguification appears to be in the domain of the ganglionic system.

III. Influence of the Ganglionic System on the Functions of the Stomach. This organ receives nerves from the ganglionic system, and also from the eighth pair. Its office is to warn us of danger—to produce muscular movements—and to effect chymification. If an animal is kept fasting till great sense of hunger is induced, and the par vagum be then cut, the sense of hunger ceases. They will eat till the œsophagus is filled. It is by means of the par vagum that impressions are conveyed from the stomach to the brain—a fact easily proved by section of these nerves, which

obliterates all the phenomena resulting from mutual influence of stomach on brain, and brain on stomach. The suspension of digestion by section of the pneumo-gastric nerves is well known in this country, as well as the apparent re-establishment of that process by means of galvanism.

It has been ascertained that secretion of the gastric juice continues after section of the pneumo-gastric nerves, as also absorption in the stomach. These two functions, then, are concluded to be under the dominion of the ganglionic system.

IV. ON THE SMALL INTESTINES. What applies to the stomach will pretty nearly apply to the small intestines, excepting the sense of hunger. Section of the pneumo-gastric nerves has been found to paralyze the duodenum, and the upper portion of the small intestines. The inferior portion is under the influence of spinal marrow. An experiment demonstrated this unequivocally. The section of the par vagum does not stop exhalation, secretion, or absorption, in the above portion of the intestinal canal. These functions then, as in the stomach, are under the guidance of the ganglionic nerves. The lower portion of the ileum, the colon, and the rectum, as well as the bladder, are governed by the cerebro-spinal system, as far as motion and the sense of nisus to evacuate are concerned.

V. GENITAL ORGANS. The spermatic secretion, like all the other secretions, is under the influence of the ganglionic nerves. The hinder extremities of animals were paralyzed by section of the spinal marrow, but spermatic secretion went on. Conception took place in animals whose spinal marrow was divided. In parturition, however, section of the spinal marrow paralyses those muscles which assist the expulsion of the fœtus. Galvanism set these muscles into action. A female who was paraplegiac, was obliged to be delivered by the forceps. All the secretions, as was before observed, and as M. Brachet has proved by numerous experiments, are under the influence of the ganglionic system. Section of the spinal marrow does not arrest their progress.

THE SYMPATHIES. The author has made some curious experiments on the influence of the cerebro-spinal and ganglionic nerves on the sympathies. He cut and tied the œsophagus of a dog, after being fed, and on irritating the uvula, efforts to vomit took place. Hence he concludes that sympathy is not merely from continuity of structure. By cutting the pneumo-gastric nerves the foregoing sympathy was annihilated. The trachea was divided, as also the inferior portion of the cervical medulla, and sneezing was capable of being provoked, though there was no other communication between the nose, to which irritants were applied, and the lungs, except the par vagum. The par vagum being divided, no sneezing could be produced.

The cerebro-spinal nerves, then, are media through which some sympathies are effected. But are they the sole media? No. As the ganglionic nerves cannot excite those actions which are under the influence of the cerebro-spinal system, so the nerves of this last system cannot act directly on functions superintended by the ganglionic nerves. Numerous experiments and proofs are offered that the ganglionic nerves are devoid of cerebral sensi-

bility in a state of health, but possessed of it exquisitely when irritated. They are proved to lose this new kind of sensibility when the spinal branches of the ganglia have been cut—hence it is inferred that it is by means of the spinal nerve solely that these ganglia become *cerebrally* sensible, when in a state of irritation. This *cerebral sensibility* never exists in the ganglionic nerves, except in the very point which is irritated:—hence our author concludes that this extra-sensibility is *not generated* in these nerves, but that they transmit to their nervous centre the impression which they receive, and the cerebral nerves draw it up from thence. Thus, in irritations of the ganglionic nerves, the pain is not felt in the part irritated, but in the ganglion to which the nerve goes—hence the pains felt in phthisis, hepatitis, &c. In fine, the pain is local (and truly indicated as to seat) when the encephalic nerves are more affected in one part than in another—while it is always *at some distance* from the seat of irritation, when the ganglionic nerves are affected. This last system, then, is capable of transmitting sympathies—but only in its own manner. Thus we have cerebral sympathies, ganglionic sympathies—and mixed sympathies, where irritations in the ganglionic system are communicated to the cerebro-spinal. The author applies his doctrine to several organs—to the brain, for instance, shewing how it sympathises with the organs of sense, the heart, lungs, and digestive viscera, &c.

VII. Influence of the Ganglionic Nerves on Vision. From numerous experiments our author concludes that the regular movements of the iris are under the influence of the ophthalmic ganglion, and that the impression of light does not act on the pupil but through the intervention of the mixed sympathy above alluded to. He has destroyed the ophthalmic ganglion—the iris remained immoveable—all the other functions of the eye remaining unaffected. The other eye of the animal was destroyed, but vision remained unimpaired. The conclusion is, that the *cerebral* nervous system receives the luminous impressions—that the ganglionic nerves preside over the motions of the iris—and that the sympathy which exists between the iris and the retina is of a cerebro-ganglionic nature. By section of the cervical filament of the great sympathetic, the eye became lachrymose and painful—the conjunctiva red and thickened, without pain and by atony.

The last chapter of the work is on the influence of the ganglionic system on the passions. Dr. Brachet admits that the passions are developed by means of impressions on the sensorium through the medium of the senses and the imagination, as proved by love, anger, hatred, joy, sorrow, &c. But he truly remarks that the ganglionic system is not inert in these cases. The connexion which subsists between the intellectual and automatic life enables the latter to modify our passions to an extent much greater than is generally imagined. The reviewer, however, has not analyzed this part of the work, and we are forced to take his word for the ability with which the inquiry is conducted by M. Brachet. When possessed of the original, we shall probably offer some more minute details of particular portions of the Essay—contenting ourselves, at present, with the foregoing analysis, as given by a very able continental cotemporary—the Journal de Medecine Pratique.

III.

ON THE ORIGIN, PROGRESS, AND TERMINATION OF A MALIGNANT YELLOW FEVER, WHICH LATELY AFFECTED THE CREW OF HIS MAJESTY'S SHIP SYBILLE ON THE COAST OF AFRICA, &c. By *Robert M'Kinnal*, M.D. Surgeon R.N.

[Addressed to the Naval Medical Commissioners.]

THIS document, containing much valuable matter, having been liberally confided to our inspection by the MEDICAL COMMISSIONERS of HIS MAJESTY'S NAVY, we shall endeavour to give a concise analysis of its contents in this article, in the same manner as we would of a printed work.

It appears that the crew of the Sybille had enjoyed uninterrupted health on the coast of Africa. They had been cruizing in the bights of Benin and Biafra, from December, 1828, till the 21st of June, 1829, when they arrived at FERNANDO PO. Here they found the EDEN, which ship had lost her captain, surgeon, assistant-surgeon, and upwards of 50 men, by yellow fever at Sierra Leone, and on her passage to FERNANDO PO. The disease was still continuing its ravages in the ship at Clarence Cove. The HECLA had also suffered, as well as the Champion, lately arrived from England. The colonial surgeon and his assistant, who had come from England in the Champion, (which ship had accompanied the Eden from Sierra Leone) died soon after landing at Fernando Po. Yet the colony of Sierra Leone was reported healthy at the time the Champion sailed. All communication between the Sybille and the shore or the Eden, was prohibitied during the stay of the Sybille, excepting the purser and one or two superior officers. On the 22d of June, however, they received on board a serjeant of the Royal Marine Artillery, and seven marines from the Eden, who came from England in the Champion; and on the following day they received from the establishment at Fernando Po, Charles Hall, a marine, who had also arrived in the Champion. On the 23d of June, John Mecking, received from the Eden the preceding day, became affected with fever, and was quickly sent ashore. On the same evening the Sybille sailed from Fernando Po, and, on the same day, the serjeant above alluded to was put on the sick list for rheumatism. To him and to the seven marines, ʒj. of cinchona, with a gill of wine, was administered twice daily for four days, and afterwards once a day for a few days longer. On the 26th of June, William Love, a boy, was seized with fever, though he had had no communication with the shore or with Mecking. The case was mild. On the 2d of July, at Prince's Island, Charles Hall, received from Fernando Po, was seized, and from this period the disease continued to arise in different parts of the ship, and while at sea. It soon assumed the most malignant character, and, in its progress, attacked individuals of every class, age, temperament, and colour. The negroes were affected with it in comparatively small numbers, and in a mild degree. The marines were the greatest sufferers. On the most minute investigation, the surgeon was unable to trace the disease, either from man to man or from mess to mess; and those who visited or attended the sick were not more affected than those who kept themselves most aloof from fever cases. The usual attendant on the sick berth, and the surgeon himself, escaped the fever, though both unprotected by any previous attack. The sail maker, who sewed up the dead bodies in their hammocks had a slight at-

tack, though he had formerly had the yellow fever at Jamaica, while the boy who assisted him escaped, though equally exposed, and unprotected by any former attack. Every attention was paid to cleanliness and ventilation —and the dead bodies were speedily committed to the deep, together with their bedding and clothes.

The weather, during the prevalence of the fever, was thick and hazy. There were heavy dews by night, but very little rain. The thermometer ranged from 78 to 80 by day, and fell a few degrees at night. The last case of fever occurred on the 27th of August, on the passage to St. Helena, and the following day, while passing to windward of the Island of St. Thomas, the weather suddenly changed to a dry, pure, and clear atmosphere, and every one on board experienced a mental, as well as corporeal exhilaration, the thermometer still standing at the same range.

Two cases of fever occurred in June—twenty in July—and forty-seven in August—total 69 cases, of which number 22 died—or nearly 1 in 3. The disease was evidently yellow fever, in its highest degree of intensity. With two exceptions it was of the continued kind—the stage of excitement short, terminating, in the worst cases, in exhaustion and death on the third, fourth, fifth, or sixth day—but most frequently on the fifth. Death was preceded, in a great number of cases, by black vomit, often accompanied by a dingy or livid hue of the countenance. A peculiar, shrunk, corrugated and livid appearance of the extremities of the fingers, was not uncommon. Some died in convulsions, and others in a comatose state, without black vomit. A few went off with a dark-coloured, watery purging, often accompanied by syncope at stool and great exhaustion. Yellowness of the eyes and skin was very common before or after death. It varied from a pale lemon colour to a dark orange hue. An officer died, on the eleventh day, of relapse, though he had had the yellow fever in the West Indies. Some patients had hæmorrhages and ecchymoses. One man bubo in the groin, after the cessation of the fever.

It is worthy of remark, that of the eight marines received from Fernando Po, who took bark for eight days, two only became affected with fever. One went through all the usual symptoms of the yellow fever—recovered—and, when nearly fit for duty, had a relapse, the fever assuming the intermittent form, and readily yielding to quinine. The other marine was seized nearly a month after joining the ship, though unprotected by any former attack.

"The sudden cessation of new attacks (says Dr. M'Kinnal) of fever on the 28th, August, when 40 men were on the list, and when the power of contagion, (if it existed,) must have been at its height, seems to prove that atmospherical changes had great influence in the production, as well as in the extinction of the disease."

On the 12th September the ship arrived at St. Helena, without a man on the sick-list, being the seventeenth day from the date of the last seizure, and the third day from the last death by fever. After a couple of days' quarantine, the officers and men of the Sybille went on shore and mixed with the inhabitants of St. Helena, from the above date till the 25th of October, without any accident resulting from this unrestricted intercourse. On the 25th October the Sybille sailed for the Coast of Africa, all the crew in good health—touched at Ascension,—and anchored at Fernando Po on the 19th November. She remained only two days there, and none went on shore except Commodore Collier. The garrison was healthy. The Sybille

touched at Prince's Island to take in some wood and water, occupying a couple of days, and then sailed on a cruize. On the 5th and 6th of December she was at anchor off Wydah, where bullocks were procured—and then she proceeded on her cruize, at a great distance from land. On the 3d January she anchored at Prince's Island, and joined the squadron all well. Here the Black Joke, tender to the Sybille, arrived from Sierra Leone, where she had been very sickly, and lost twenty-three men. The disease commenced like yellow fever, but afterwards assumed the form of the common remittent fever, affecting chiefly those men who had been in prizes, or who had volunteered from timber-ships in the river, or from Free Town, to serve in the Black Joke. All, however, were convalescent or entirely recovered, when this vessel arrived at Prince's Island. When the Sybille was weighing anchor, on the 7th January, a boy came on board from his ship the Tyne, who laboured under the common tertian, which was readily cured. He stated that the Tyne was healthy. On the 13th January, yellow fever again broke out in the Sybille, while cruising off Cape Formosa. Dr. M'Kechnie, an assistant surgeon, who had lately come from England, and who had been for a few minutes in the Black Joke, was the first to take the fever. The disease soon increased in the ship, and early in February it became very alarming, producing the most dreadful havoc, "affecting, as formerly, individuals of every habit, temperament, age, and colour." The weather had been very hot and sultry, and the tornados commenced sooner than usual. The number of cases, during this visitation, amounted to 87, of which 26 died with the usual symptoms of the most malignant yellow fever.

Afterwards in St. Helena Roads, on the 22d March, the fever again broke out, and twenty-two cases occured, of which six died. She sailed from St. Helena on a cruise, and during that time the Negroes on board were employed to give the hold and wings, &c. a thorough clearing out, succeeded by ventilation and all kinds of purification. After this there does not appear to have been any cases of fever in the Sybille.

"Before I conclude, I beg leave to observe that I am now of opinion, that the yellow fever in the Sybille, on both occasions, arose principally from noxious emanations from the interior of the ship herself, caused probably by the decomposition of the wood from the long-continued action of heat and moisture, and aided, perhaps, by an accumulation of different substances, which, after a certain time, must take place in a greater or less degree, particularly under the timber boards and lining of the ship, in all vessels whatever. It is probable also that the difference of health with respect to yellow fever, in different ships in tropical climates, placed apparently under similar circumstances in other respects, depends on the kind, age, and quality of the wood of which the vessel has been built, or with which she has been repaired. Atmospherical causes contribute also, no doubt, to the production of the disease, not only by favouring decomposition and the formation of noxious effluvia, but also by rendering the body more susceptible of their influence, or by acting as an exciting cause.

This opinion of the principal source of the disease in the Sybille is founded chiefly on the following considerations.

1mo. That there is not on record, as far as I know, an instance of yellow fever originating at sea, possessing great malignancy of character, and affecting a great number of men without communication with an unhealthy

ship, (in which case the disease is usually, if not always confined to those who have visited such a vessel,) or exposure to contagion, or to noxious emanations from the shore in an unhealthy situation where the disease is often found to prevail, or from the ship herself.

2ndo. The immunity of fever from several other ships on the African station, though cruising nearly in the same situation as the Sybille, and exposed to the same, or similar weather.

3tio. Because it is impossible to ascribe it to an accumulation of filth in the holds or store-rooms, in a ship so clean, so well ventilated and regulated as the Sybille has been since she was last commissioned.

4to. The report that the Sybille has been an unhealthy ship for many years, both in the West Indies and in the Mediterranean.

5to. My firm conviction, from the facts above stated and others that might be added, that the disease was not contagious.

And lastly, because all the facts that I have stated, and particularly the occurrences at St. Helena, prove that the disease had, notwithstanding, a local origin."

We regret exceedingly that Dr. M'Kinnal has almost entirely blinked the important question respecting *second attacks*. During three visitations of the fever in one frigate, whose ship's company could not have exceeded 300 men at the utmost, 178 underwent fever; and yet the medical officer does not authenticate a single instance, as far as we can see, of a second attack. On the other hand, he frequently alludes to the immunity or protection of previous seizures, which leads us indirectly to the assumption that no secondary seizure occurred. We do not make this remark with any intention of inferring that the "Bulam fever"—the "nova pestis"—the Gibraltar fever," was a specific disease, like small-pox or measles, affecting the constitution (generally speaking) but once. We state the fact fairly, in order to give the advocates of contagion every advantage that this fatal scourge of one of our frigates can afford. Our own conviction is, that this fever, as well as many others, confers a temporary immunity from second attacks, without proving the disease to be either contagious or specific. The question is involved in Cimmerian darkness—and the more we investigate it, the more we are convinced that we are far from possessing materials for a final adjustment of the litigation.

IV.

A short Tract on the Formation of Tumours, and the Peculiarities that are met with in the Structure of those that have become Cancerous; with their mode of Treatment. By *Sir Everard Home*, Bart., &c. &c. 8vo. pp. 98, with several Plates. Sep. 1830.

The venerable and talented author of this little volume observes that, as this is the last of his professional labours that will be submitted to the public, he cannot, at the age of 74, make a better preface than by "an humble prayer of grateful acknowledgement to the all-wise Creator, who has permitted him to continue the investigation of his most wonderful works for so long a period, and thus enabled him, in many instances, to alleviate the

miseries of suffering humanity, and to glorify the name of the Author of our existence." This is at least a pious preface, and we hope the writer of it will yet enjoy many years of the otium cum dignitate, now that his philosophical and professional labours have honorably closed.

In 1800, and in 1805, Sir E. published in the Transactions of a Society, &c. an account of tumours found in the thecæ of nerves, and a tract on cancer. "In youth, he says, we only publish our professional acquirements—in age we can lay before the public the result of our own professional experience; and unless the *first* have appeared, the second cannot be justly appreciated." We do not quite understand the foregoing proposition. We imagine that the value of a man's professional experience in age might be appreciated, and justly appreciated, if he had never appeared before the public in youth.

Sir Everard conceives that all tumours are formed by depositions from the blood—and, in general, resemble in structure, more or less the substance of the natural parts by which they are surrounded. Fatty tumours, he avers, are nothing more than deposits of fat in parts that have been slightly injured.

"Where the injury has been more severe, the materials of which the consequent tumours are composed differ according to the quantities and new combinations of the extravasated materials; but although unlike one another, still, however, in general, in their texture, they bear a resemblance to the healthy parts by which they are surrounded.

It is not only necessary for the surgeon to know the nature of the structure of the tumour, but in many cases it is important to examine with accuracy the parts surrounding it, and the mode in which it is connected with them.

There is a particular species of tumour met with in the neck, and probably in other situations, which is contained in a cyst, and only loosely connected with it by small blood-vessels from its surface and cellular membrane. It is of a yellowish-white colour, and somewhat resembles a kidney. It is of a uniform texture; and when allowed to increase to a considerable size, some portions become more compact than others.

This tumour is very common; and in its removal it is only necessary to lay open the cyst, and disengage the tumour with the finger. This I have frequently done: but there is a tumour apparently similar, incased in a nerve, which requires a different mode of extirpation. I shall mention the cases of this kind which have come under my observation, and describe the mode of operation which should be employed for their removal." 5.

Sir E. relates the case of a tumour the size and shape of a pullet's egg, situated on the outer side of the biceps muscle of the right arm. It was moveable in all directions, and on laying it bare, it was found to be inclosed in a nerve. The whole was removed; but the patient had no use afterwards of the thumb and forefinger, the skin of which became dry, rough and scaly. The tumour covered by nerve, appeared to consist of serpentine fibres, externally, and a homogeneous substance within. Another case somewhat similar is stated. These tumours have this peculiarity—when moved laterly no pain is felt—but if moved in any other direction, acute pain is complained of.

Sir E. next proceeds to the narration of a very remarkable case that occurred in St. George's Hospital, 14 years ago, where the tumour arose from the diploe of the cranium, in consequence of external injury, and in its increase made its way through the external table, without injuring the internal. The tumour was twice the size of the poor woman's head, and the surgeons thought an operation highly dangerous.

"After maturely weighing all the circumstances, she cheerfully submitted to the operation, which I performed on the 9th of October, 1816, in the theatre of St. George's Hospital. The operation was begun by a crucial incision through the integuments down to the surface of the tumour; the four flaps of skin were turned back; and all the soft parts of the tumour, which consisted of fat mixed with a steatomatous substance, were removed; and as doing this had occupied a considerable time, the skin was brought over the remaining tumour, and the patient put to bed. The pain had not been severe, and was submitted to with great fortitude. On the next day the skin was turned back; the bony rim surrounding the base of the remaining tumour, formed by the external table, was exposed all round; and, as it was close to the orbit, a saw was so contrived that its blade could be passed between them, having an iron bow fixed upon the opposite side of the blade instead of behind; so that there was no impediment to the working of the saw till the extensive base of the tumour, that consisted wholly of bone, was sawed through. The integuments were then brought forwards; and, although they were at first so much too large as to be thrown into folds, they very soon contracted, and in a few days did not extend beyond the surface on which they were laid; and the parts healed in the same manner as any other wound, leaving a firm cicatrix, with a more regular surface than there was reason to expect. In the course of the healing of the parts, no symptoms, either local or constitutional, were produced." 15.

The female was detained as a servant at Chelsea, in order that the result of the operation might be noted. She was afterwards admitted as a nurse in St. George's Hospital, where she remains in good health.

The next subject discussed is cancer. This disease, says Sir E. has hitherto been considered as one originating from a poison generated in different parts of the body, from accidental or other causes.

"As the same parts in different individuals, under similar circumstances of violence, do not always form cancerous tumours, when they do so, it must a ise from a peculiarity of constitution disposing the injured parts to take on this disease; and therefore the tumour, in its origin, cannot be cancerous." 18.

Sir E. rebuts the idea that any disease can be hereditary—but comes to nearly the same thing by admitting a *predisposition* to be transmitted from parent to progeny. When the muscular and tendinous fibres of the gastrocnemius muscle are lacerated, the ruptured vessels bleed and form a tumour, which is sometimes absorbed—sometimes becomes cancerous. The late John Hunter, in consequence of throwing a stone with over-exertion, strained his pectoral muscle—the lacerated fibres produced hæmorrhage and swelling—he became faint—and required rest for some time, but ultimately did well.

"A gentleman who had a similar accident, followed by a tumour in the part, which he did not believe of any consequence, insured his life, and declared himself labouring under no disease. He afterwards died from a cancer formed in that tumour. Mr. Cline was consulted, and said that the tumour in the pectoral muscle was a cancer, and had been so from its first formation. In this opinion he was supported by another surgeon; and therefore the office refused paying the insurance, as the gentleman died in consequence of the fungous excrescence which this tumour afterwards produced. The case came before Sir William Grant, then Master of the Rolls, who was staggered by Mr. Cline's affidavit, but not convinced, and called upon me to know my opinion. I stated, that if Mr. Cline was correct, all such accidents would be immediately followed by cancer, which I knew was not the case, and gave him several instances in confirmation of my assertion, in particular, that of Mr. Hunter; and the gentleman's executors gained their cause: since Mr. Cline could bring no proof when the cancerous disposition first took place; and as the gentle-

man, at the time he took the oath, could have no knowledge that the swelling brought on by the accident could be the forerunner of any disease." 21.

Sir E. next indulges in various theoretical speculations respecting the origin and formation of tumours, on aneurisms, hydatids, and cancers, which we confess we are not much inclined to analyze. In the year 1773, Sir E. began his studies under John Hunter, and, as the treatment of scirrhus and cancer had baffled the attempts of the regular surgeons, it fell into the hands of empirics. Their practice consisted in the destruction of the morbid growths by different kinds of caustics, especially the arsenical. Like St. John Long's liniment, these poisons and escharotics were believed to act only on the diseased structures, and to spare all sound parts. "But experience proving the want of success of this practice in cases of confirmed cancer, and the cruel torments produced by such applications lasting for a great length of time, it fell into disuse." The knife was therefore preferred by regular surgeons, who hoped, when the whole of the tumour was removed, that the disease would not return. That the surgeon was often deceived in this expectation, we need not now say. Mr. Hunter was very much employed in operations, and particularly in the dissecting out of tumours, from his paramount anatomical knowledge. These opportunities of observing were extended to Sir Everard, and continued in his own person for 57 years—no trifling experience. Sir E. has now selected from a great and overwhelming case-book, a series of cases exemplifying the more usual progress of cancer, both where it was allowed to run its course unmolested, and also where it was made the subject of surgical operation. These cases are related in such a brief manner that it is impossible to abbreviate them; yet, as authentic records of facts, we are loth to pass them over unnoticed. We shall therefore include a good leash of them in one extract.

"*Cases of Cancer of the Breast that came under my own immediate Observation.*

1. A lady, when forty-eight years of age, had a lump in the left breast, considerably advanced towards ulceration. The glands in the axilla and above the clavicle were swelled and indurated; the arm was swelled, with pain in the shoulder and back.

When twenty-eight years old she had a small tumour, the size of the end of the finger, which remained stationary for six years, at thirty-five years of age grew larger, and occasionally gave pain. It afterwards rapidly increased, and arrived at its present state of a confirmed cancer, which was considered beyond the reach of an operation; and it terminated in the death of the patient.

2. A lady, between fifty and sixty years of age, had a cancerous tumour in the breast, moveable upon the pectoral muscle. This was thought by the surgeon in the country a case for operation; but Mr. Cline, on examining it, was of a contrary opinion. In about two months from this period, the arm had become much swollen, and at this time my opinion was requested, which accorded with that of Mr. Cline; but we were unable to convince the surgeon in the country that he was not in the right. He said that the swelling in the arm made no part of the disease, and was only a sympathetic affection, which could be readily reduced. I told him, that as soon as he succeeded in reducing the swelling of the arm, neither Mr. Cline nor myself would object to the operation upon the breast.

By means of bandages he was enabled to diminish the size of the arm, but not to prevent the return of the swelling to the same degree as before, when the bandages were omitted. The disease continued to increase, and in a few months the patient died.

3. A lady, fifty-eight years of age, had a tumour in the breast, which for nine or ten years had been growing to its present size. Several glands in the axilla were enlarged; the tumour itself made slow progress, but the skin, which firmly adhered to the tumour, and had an appearance of being tucked down upon it, had in the neighbourhood become studded over with small tumours, resembling split peas: they first appeared there, but in nine months they were met with all over the body, on the opposite side as well as that on which the tumour had formed. They were in no place close together, being about an inch apart, and nearly the same in size, but rather larger near the original disease. They gave a considerable degree of uneasiness, and her health was much impaired. In a few months she died. The tumour had previously become painful; frequent retchings had been produced, and her stomach retained little or no food.

It is a question whether the smaller tumours in the skin were cancerous, although consequences of that disease, since they are met with in cases in which no previous cancer had existed.

4. A lady of a delicate habit, who, before she was 37, had several children, and had had milk abscesses in both breasts, found a small tumour in her left breast; besides this, the glands in the axilla were enlarged. This tumour I did not believe cancerous, as the glands in the opposite axilla were also enlarged. The tumour increased in size in the course of a year; and in another year was still larger. In the third year the glands in the axilla were more swelled and painful, and a small tumour formed in the skin, near the original one. In the fourth year all the symptoms increased, and a second tumour formed in the skin. An inflammation in the lungs, to which she was subject, now came on, from this time she never noticed her breast, in which the symptoms remained stationary; and after an illness of four months, she died.

An operation would have hurried on the disease, and caused her death at a much earlier period.

5. A lady, fifty-seven years of age, had a small tumour in the breast, without pain, the size of a pea. In two years it had scarcely enlarged. At that time she received a blow upon it, and it afterwards rapidly increased, with occasional pain. Six months after this I saw it. The tumour, which was situated above the nipple, was too large and too firmly connected with the surrounding parts to encourage an operation proving successful. I saw it occasionally: its increase was uniform; no glands in the axilla became enlarged, but one swelled above the clavicle. In six months she had a violent inflammation in her lungs. On her recovery, the tumour had become very large. After another year a tumour formed between the breast and clavicle, and two small ones above it. At this time an empiric gave her promise of a cure; but she was to give him a guinea a day till it was effected. I begged to have an interview, and told him that if he failed, I should ruin his character by my exposure of it, and as the glands above the clavicle were effected, he could not succeed: in this way the attempt was abandoned.

In two years more the original tumour became a sore: this was five years after it had been struck. The ulcerated surface was about the size of half a crown: it discharged a considerable quantity of limpid fluid: the ulceration increased rapidly, the edges rising higher than the surface of the sore. In two months a bleeding took place, which was readily suppressed: this returned periodically every three weeks, to the quantity of eight ounces.

At the end of the sixth year the ulcer became very large; and from the thickness of its margin, covered with an imperfectly formed cuticle, it acquired a great depth. Her general health became impaired; and the pain was so severe that she took two hundred drops of laudanum twice in the day, to afford her intervals of ease.

At the end of the ninth year, she died, worn out by the repeated bleedings and the progress of the disease. The only treatment made use of was powdered extract of hemlock, which for years considerably diminished the pain; so much so, that when some which had been prepared with great attention was expended, and that made in the ordinary way was

substituted, she complained that it had lost its beneficial effect. Had she employed the empiric, her life would have been shortened, and her income, which was small, eaten up.

6. A lady, who had occasionally matter, blood, or bloody water issue from the nipple, had, some months after, a tumour formed, and the nipple ulcerated; the glands in the axilla swelled, and all the symptoms of cancer came on, of which she died.

7. A woman was received into St. George's Hospital with a small tumour at the basis of the nipple, which was very moveable. The first symptom of the disease was blood oozing from the ducts in the nipple. It was removed with the surrounding parts. The tumour, when examined after removal, was found to be entirely circumscribed, and appeared to be no part of the gland of the breast, but a newly-formed structure; and I never heard of the disease having returned.

8. A lady, twenty-three years of age, had a tumour in the breast, hard to the feel, giving occasional pain: it had continued for a year, when Mr. Hunter extirpated it with the parts surrounding it. Upon examination of its structure, it was found to be a solid tumour, distinct from the neighbouring parts, to which it was only slightly attached.

It is impossible to tell whether it would have ultimately become cancerous; but there is every reason to believe that, as she advanced in life, it would have acquired a cancerous disposition.

9. A lady, thirty-five years old, had two small tumours in the left breast, at six inches distance, on the upper part, without pain or uneasiness. I stated that, in my opinion, they were not malignant. In two years they had not enlarged, but were at times painful. The patient wished them removed, and the operation was performed. When examined, they were found to be circumscribed; and when the covering was divided the substance expanded itself.

10. A woman, fifty years of age, who had a tumour in the breast, which had not arrived at a large size, and was unaccompanied with enlargement of the glands in the axilla; it was therefore extirpated by Mr. Hunter, in 1774. The wound was slow in healing, and a knot the size of a pin's head appeared on the cut edge of the skin; in two days a second knot appeared, at the distance of three-fourths of an inch: these increased rapidly in size, and were destroyed by caustic. The wound healed, and she never afterwards had return of the disease, but died of a dropsy, seven years after the operation.

This case proves that, in the first instance, the appearance of small excrescences on the cicatrix of the wound, made in the removal of cancerous tumours, is not always of a morbid nature, and capable of carrying on the disease.

11. A lady, thirty-two years of age, the mother of several children, discovered by accident a tumour in the breast. As the tumour was movable, means were taken to disperse it; but these proving ineffectual, I was consulted, and advised its removal, which was acceded to. At the time of the operation, the tumour moved freely in one direction, but was more confined in that of the fibres to which it was found to be attached, and part of that muscle removed along with it. The wound healed in three weeks. In six months after the operation, a fulness was felt in the pectoral muscle, attended with pain; in a twelvemonth a tumour had formed, and the skin was put on the stretch. The pain had become intolerable; the tumour daily increased; and, upon her being seized with vomiting, the lower part became discoloured from the rupture of the smaller vessels. A fortnight afterwards the skin broke, and a fungous excrescence appeared, covered with blood, from the vessels in the surface giving way. In about three weeks, she died.

From this case we learn the difference which the disease of cancer puts on in a glandular structure and in a muscular one: it also explains to me the nature of the true hæmatoides, which is the effect of cancer when a muscle is the seat of the complaint." 49.

More than a dozen more cases are related by our author, but we do not deem it necessary to notice them.

After the mamma, Sir E. considers the tongue as most liable to cancerous affection. Any local complaint in this organ, he observes is liable to take on the carcinomatous character—in other words, to propogate itself by affecting the contiguous glandular structure, "after which the disease is carried on by absorption." All such cases have a fatal termination, if the diseased parts are not early extirpated. When the operation is early performed, a cure has always been effected. Cases in illustration, chiefly from the practice of St. George's Hospital, are given by the author.

"Cancer in the testicle has two modes of making progress; the one by becoming a scirrhus, exceedingly hard, and contaminating the cord, and then the lymphatic glands, in its progress, as high as the loins. This is called a genuine cancer, and has been described accurately by several writers on surgery. There is however, another disease, which, as it contaminates the neighbouring parts, and continues its course by means of the absorbent glands, may be considered not improperly as the same disease.

In either of these local diseases, the parts are not capable of contamination of the neighbouring parts till after those have long continued to have lost their healthy state; and when the organ is extirpated early, the patients, I believe, always get well. But this is a rare occurrence when the disease has completely established itself; and when it has, an operation, or any other violence committed upon the parts, by its irritation, accelerates the progress of the disease.

A gentleman had an occasional swelling in one of his testicles, which subsided, but returned again, and in the end became permanent, extending some way along the cord. When it was in this state, it was extirpated; the skin that adhered to the testicle was freely removed, and the cord was included in the ligature, as high as the abdomonial ring; —all went on well. About nine months after the operation, a swelling under the upper part of the cicatrix was observed, which appeared, both to Mr. Pott and Mr. Hunter, to be a lymphathic gland. This increased in size, and with others that appeared formed one mass: a degree of fluctuation was felt, ulceration took place, and a fungus shot out, which often bled, and he died.

In this case the return was not in the line of absorption nor cord: and the cicatrix never gave way. To account for this return, the glands in the groin must have been affected by the diseased skin of the scrotum.

This is an uncommon circumstance, and surgeons have not hitherto taken the risk of the disease being carried on from the scrotum into the account, when an operation is the question under consideration." 73.

Cancer in other parts besides glands is frequently met with. In some cases it is the immediate consequence of accident—in others, it is the effect of the parts having long-continued in a diseased state, till a certain advance of years render them more susceptible of the carcinomatous action.

"We have from this a confirmation of no cancerous disease ever being so in its origin; and learn, that, when parts have been long in a diseased state, we have no security against their not ultimately taking on a cancerous action: but in all such cases, there must be a peculiarity of constitution existing, previously to the parts undergoing such a change." 77.

We confess we cannot so clearly see the proof in thes cases, that no disease is ever cancerous from the begining. When Sir E. tells us that in all these instances, there must be "a peculiarity of constitution existing," what is this but another term for cancerous leaven in the constitution? It is only rendering *obscurum obscurius*. We shall conclude this article with the following extract which also closes the volume.

"Having stated the principal cases of this disease that have come under my observation, so as to explain its nature and symptoms, and their progress in particular instances; and having had the opportunities continued to me, for half a century, of paying attention to this subject, I am sorry to add, that very little progress has been made, either towards a cure or prevention of the disease taking place. Many tumours like those that formerly were, by violent applications, rendered true cancers, now never take on the disease; but no one is enabled, from such evidence to prove that their more ordinary course would ever have led to such a termination. The progress of the symptoms having been decidedly retarded, and rendered less violent, is sufficient evidence that such mild means have been employed with great advantage, in cases which were of a dubious nature.

The treatment in my own practice, that calls forth this commendation, is the internal and external use of hemlock; and, in proof of its efficacy, in some cases when the medicine was left off, the symptoms became more violent; and when resumed, abated. Also, when the powder of the leaves was prepared at the proper season, and the light entirely excluded while the drying of it was carried on, even in confirmed cancerous ulcers, benefit was derived in so great a degree, that the patient could ascertain from increase of pain some change had taken place in the application, when powder less accurately prepared was used as a substitute for the other. I have even prevented the operation when the day had been fixed; and the patient lived for months under this palliative mode of treatment, without any progress of the tumour, and was carried off by epileptic fits. In many cases the swelling diminished, and in others remained stationary for years, and never afterwards made any advance; so that I am convinced that I had before been too much alarmed, and frequently came to an operation before it was required.

It is now fifteen years since I was taught by experience that the sarsaparilla, in the form of decoction, has not the same powers of a restorative medicine as in the form of a powder, to which heat had not been applied. Mr. Cline had ascertained the same fact: this I found when in consultation upon the case of a young gentleman, who had his uvula destroyed by ulceration. In this case several medical men gave an opinion in favour of nitric acid, and of the use of the decoction of sarsa. Mr. Cline and myself warmly expressed ourselves in favour of the sarsa in powder; and our suggestions were adopted. In the course of four days the ulceration had been restrained by its use; and in less than a week the patient was allowed to be out of danger. From that time I never employed the sarsaparilla that had been exposed to heat, either by the fire, or the sun's rays in the window of an apothecary's shop.

In a case of ulceration of the palate and uvula, for which the patient had taken nineteen quarts of strong decoction of sarsaparilla, under the direction of one of the most respectable surgeons in Edinburgh, who made up, in his own house, the medicines he employed,—and therefore there could be no doubt of their being of the best kind, and prepared with every proper care,—the ulceration was still going on, and he came to London with the twentieth quart bottle in the carriage. Upon taking two drachms of the powdered root, freshly ground, three times a day, he recovered entirely in less than fourteen days." 97.

We now take leave of Sir Everard Home, and regret to learn from his own mouth, that it is a *final adieu!* There is something in that word which renders parting from an enemy somewhat painful—and still more when we are shaking hands for the last time with one whom we respect or venerate! Such separations, however, are the daily lot of mortality in this sublunary scene—and the nearer man approaches the awful goal, the more numerous they become!

V.

Medico-Chirurgical Transactions. Published by the Medical and Chirurgical Society of London. 8vo. pp. 235, Two Plates. London, 1830. Vol. XVI—Part I.

The present volume or portion of a volume of the Society's Transactions, though not containing any paper of commanding importance, is far from barren in interesting cases. Amongst the contributors are, Dr. Babington, Mr. Lawrence, Dr. Bostock, Mr. Copland Hutchison, Mr. Langstaff, and other gentlemen, whose names are by no means unknown to fame. When men of erudition and eminence step forward to contribute their mites to the public stores of information, the aggregate must be important, though the items may be separately trivial. The substance of all useful books which issue from the press will always be found in the pages of this Journal. It has been our aim to separate the chaff as much as possible from the wheat, and to spread before our readers wholesome and esculent food, in preference to more fantastically cooked and more high-seasoned viands, which tickle the palate but tease the stomach. Side dishes are laid out on well ordered tables, but few there are who taste them.

In the present days, when medical books are a glut in the market, and medical booksellers are not acquiring rapid fortunes, the Transactions of Societies or the pages of the journals are the only vehicles in which prudential persons would choose to embark their facts or speculations. Like Aaron's rod indeed, the periodical press has almost engulphed its competitors within its insatiate jaws. The transactions of Societies scarcely pay the printing expenses; their circulation as books is very limited; and, as a natural consequence, they have lately become barren in articles of interest. It is the journals which swallow all, it is the journals that bring books, and hospitals, and lectures to the door of every surgeon in this mighty empire. There may be, nay, there is, individual evil in the exercise of the powers of the periodical press, but it cannot be denied that there is general good. Men might as well bid the sun stand still, or the tempest be lulled at their bidding, as attempt to stop the progress of that mighty engine. It has changed and is changing the face of Society, but whether for good or for evil, the great God, who rules all things, only can divine.

It is not our intention to enter on general speculations respecting the operation of periodical literature. It is enough for us, that we are constituent parts of the machinery, and humble agents in dispensing its benefits to mankind. It is not our business, it may not be our taste, to engage in political or party discussions, for we have ever thought that the most honorable part of our vocation was to convey information to those who are in need of it. In the best days of Rome, before Virtue had received her death blow in Utica, and the shadow of Liberty had blended with the mists of the night at Pharsalia, the proudest crown was won by him who had saved the life of a Roman. If at any time we have been the means of affording instruction where such was wanted, we should deem ourselves more than repaid for any labour we may have undergone. It is our avowed object to place all that is worth knowing in medicine, within the hands of those who wish to learn. And we can assure the younger portion of our readers that, when

the difficulties and annoyances of practice crowd upon them, they will look back with pleasure on the moments which were spent in acquiring information; with regret and shame on those which were wasted in the perusal of ribaldry, and the encouragement of slander and slanderers. These remarks are not irrelevant to our present subject, for the inculcation of proper principles is never out of place.

In returning to the consideration of the Transactions before us, we may premise, before we enter on the review of particular articles, that those of minor bulk or of meaner interest will find a place in the Periscope department of this Journal. The more important will be noticed in the portion devoted to Reviews. Three papers are dedicated to cases of iliac aneurism. They occupy separate places in the volume, but we think it better to bring them under one view.

I. *Case of Aneurism of the External Iliac Artery, in which the Femoral Artery and Aorta were tied.* By J. H. JAMES, Esq. Surgeon to the Devon Hospital.

John Windsor, æt. 44, a spare but not unhealthy looking man, was admitted into the Devon Hospital, May 7th, 1829. He had been previously treated for diseased hip-joint, and for such Mr. James continued to treat him; but observing what he thought to be a glandular tumour above Poupart's ligament, he requested his colleague, Mr. Barnes, to look at it, and the latter ascertained it to be an aneurism. Part of the contents of the tumour could be expelled by pressure, but on that being withdrawn the blood returned with throbbing. The tumour continued to increase fast, and in June it occupied the whole of the iliac region, and projected considerably into the lower part of the abdomen. Mr. James determined to tie the artery below the tumour, notwithstanding there was no pulsation in the femoral artery in the groin. On the 2d of June, the operation was performed. Mr. James made an incision at a point exactly midway between the symphysis pubis and the spine of the ilium, reached the artery, which was seated at considerable depth, and tied it about half an inch below Poupart's ligament. In the evening there appeared, by measurement from the groin to the umbilicus, to be a diminution of three quarters of an inch in the bulk of the tumour. On the 4th, a little matter which had formed in the course of the ligature was let out, and the tumour was now diminished one inch. The temperature of the limb had been uniformly good. From this day the tumour began to increase, and on the 12th had equalled its former measurement; it began to point at its lower and outer part. On the 24th the integuments were grown tense and shining, and there was considerable pain; the man looked haggard and ill.

The tumour now increased fast in all its dimensions, especially at the part already mentioned, where the integuments soon became dusky red, and œdematous. The tumour was also growing towards the umbilicus. A consultation was called and it was determined to tie the aorta. This was done at half-past three, p. m., on the 5th of July, in the presence of the operator's colleagues and many medical gentlemen.

"The man was placed on the table with his shoulders slightly raised, the bowels having previously been thoroughly opened. I made the incision rather lower than in Sir A. Cooper's case, beginning it an inch above the umbilicus, and continuing it two inches below.

I scratched through the linea alba below the umbilicus, and then prodeeded to open the peritoneum nearly to the same extent as the external wound. This first part of the operation was somewhat impeded by very copious bleeding from the vessels of the integuments.

As soon as the division of the parietes was effected, the viscera protruded, and the efforts of the poor fellow continuing strong, I soon found myself embarrassed with almost the whole of the bowels: nearly all the colon, and a great part of the small intestines being pushed out, and presently quite distended with flatus, a circumstance frequently remarkable in the operation for strangulated hernia. I found the aorta without difficulty, pulsating strongly, but it was surrounded with dense cellular membrane, and a strong peritoneal covering was likewise interposed between my nail and it.

I may remark that even in the dead subject, it is sometimes a difficult matter to force the nail and finger between the aorta and the spine; in this case, embarrassed as I was by the coils of intestine, in which my hand was buried, it was particularly so. I enlarged the wound, but it was of little service; to have obtained sufficient room to push aside those inflated intestines would have required an incision of enormous extent; and supposing this made, there would hardly have been a probability of retaining them completely within the abdomen by any mode of suture during the exertions which the patient might make, and which it would probably be impossible to prevent.

I endeavoured cautiously to get the point of the aneurismal needle through, and succeeded; but when it reached the other side it broke at the handle, which in the one I had selected for its curve, was unfortunately of wood. I had little anticipated occasion for so much force. The broken part was so sharp that I was obliged to withdraw it, for fear of injuring the intestines. With some additional difficulty I got my finger, with Weiss's instrument upon it, under the artery; but even after this was effected, it was by no means easy, with the best assistance of my colleagues, to extricate the short needle-bearing the ligature, so much did the intestines interfere with every kind of manipulation. When the ligature was underneath, I kept the intestines out of the way with the fingers of both my hands, and placed one of my thumbs on the vessel, whilst Mr. Luscombe drew it, first on my thumb, and then on the artery; by this I prevented any thing from being included, a caution which Sir A. Cooper has particularly dwelt upon. The ligature was then drawn tight, and the tumour became flaccid; at the same time the patient complained of deadness in the lower extremities. The ligature was cut close.

From the tension of the muscles and the inflated state of the intestines, they were not easily returned; but when they had been replaced, five needles were passed through the integuments, and the wound having been secured perfectly by the quill suture, large straps and a bandage were added, and the man was put to bed." 9.

During the operation he suffered much and was at times very faint, but was revived by brandy and water, with laudanum in it. He complained of great pain in both the lower limbs, which on the aneurismal side soon amounted to agony, and tortured him till he died, which was at 7, p. m., on the same evening. Till the cold dews of death were settling on this unfortunate patient, the temperature of the lower limbs continued the same as the trunk.

Dissection. The tumour was considerably collapsed, and the discoloration on its surface gone. The wound measured four inches. A large quantity of blood, partly coagulated, was found in the abdomen amongst the intestines. This may have proceeded from the vessels of the parietes, which is unlikely; or from a small branch, observed at the time of the operation to be wounded, in one of the underfolds of the mesentery. The intestines

were still distended with air, and apparently uninjured. The ligature was firmly drawn round the aorta, five lines below the inferior mesenteric artery, and eleven above the bifurcation of the common iliacs; it was about an inch below the duodenum. Some very dense cellular membrane, and a small vein which was traced along the coats of the aorta, and terminated in the inferior mesenteric, were included in the ligature. The vena cava was uninjured.

The aneurismal tumour was of enormous size, extending, even when collapsed, from the upper part of the thigh to the side of the vertebral column, and filling the whole of the ilium. It projected on one side far into the pelvis; on the other, it occupied the inferior posterior part of the abdomen. The ilium on which it rested was bare, scabrous, and absorbed nearly through to the acetabulum; hardly any of the pubes on that side, as far as the symphysis, was left. The walls of the outer and lower part of the tumour, where sloughing had been threatened, were very thin and formed only of attenuated muscular fibres and skin; the blood here was grumous and fluid. The sac elsewhere was thick and dense, and the peritoneum adhered most firmly to its anterior surface. Let us glance at the state of the vessels. The division of the aorta into the common iliacs was natural; so was the common iliac on the left side. The left internal iliac was natural. The external iliac was immediately implicated in the tumour, along the anterior surface of which it ran broad and flat, about two thirds of its length, at which point it was abruptly lost. On opening the sac no traces of the posterior part of the artery could be found, but an inch and a half lower down it was recognized again, forming a pouch from which proceeded the femoral arteries. The sac was chiefly filled with concentric lamellæ of organized fibrine: it also contained much coagulated and some grumous blood. There were some diseased spots in the aorta; the lower part of the external iliac, forming the pouch before mentioned, was thickened and diseased in the highest degree.

The following circumstances were observed in the arteries below the sac. The external iliac did not terminate, as usual, in the common femoral, but gave off two trunks of nearly equal size; from the inner, corresponding with the profunda, the epigastric arose. The ligature had been applied to the superficial femoral, half an inch or more below the level of the origin of the epigastric. Above the ligature was a perfect clot, reaching as high as the external iliac; below it the remains of a clot which had been disturbed by a probe. At this point of ligature the artery was obliterated. A large quantity of dense lymph was deposited externally, restoring the apparent size of the artery, and burying the noose of the ligature firmly within it.

In the aorta the clots were imperfect both above and below. There was no appearance of disease in the hip-joint. No mention is made of the state of the heart and great vessels in the thorax, which we cannot but deplore.

Mr. James laments that he did not discover the aneurism sooner, yet he feels assured that, had he done so, he would have tied the artery below the tumour. If there were any room whatever for the application of a ligature to the external iliac artery above the tumour, we should hold Mr. James, or any other surgeon, most culpable in tying the vessel below it. Experience has proved that, whatever be the merits or demerits of this operation, it is not to be compared in point of security with the Hunterian. The

ligature of the external iliac artery has ever been considered more successful than that of the superficial femoral; at all events, it is not a dangerous operation. But the operation below the tumour, for iliac aneurism, has proved singularly unfortunate, and the origin of the epigastric and circumflexa ilii branches, between the sac and the ligature, appear to be explanatory of the circumstance. If then no space is afforded for operating on the external iliac, it comes to be a question whether the surgeon should operate below the tumour, or tie the common iliac. For our own parts, we must say that, under ordinary circumstances, we should be inclined to try the former and the milder method, though our hopes of success would be far from sanguine. This operation is by some very oddly considered a party question. The radicals are furious if a man presumes to question the wonderful success they pretend to attribute to it. Probably there is no operation in modern times, respecting which so many and such unblushing falsehoods have been promulgated by its advocates.

The operation on the abdominal aorta could hardly have been undertaken in the present case, with the slightest hopes of success. We confess that we look with some degree of aversion, on operations performed without fair probabilities of a fortunate issue. Unsuccessful operations, especially if they are severe, create a prejudice against surgery in the public mind. Surgeons are either looked upon as ignorant of the chances which their measures offer to those who submit to them, or suspected of an overweening and disgusting fondness for the knife, at the expense of the blood and the sufferings of their patients. Suspicion in such a case is as terrible as certainty, and every unfortunate operation that occurs will probably deter persons from undergoing others that would prove successful. This is a consideration which should weigh with all humane and reflecting men.

Mr. James is much surprised at the violent pain experienced in the lower extremities of the patient on tightening the ligature round the aorta. By being confined to the lower extremities, it depended evidently on the vessels supplying them, and as neither the vein nor a nerve were included, it follows that the cause must be searched for in the artery. It is well known that some old persons, in whom the arterial tunics are more or less diseased, and the circulation consequently feeble in the lower limbs, are subject to ulcers or sloughing on the leg, attended with excessive pain. Such cases are modifications of the gangrena senilis and run into it; the pain is excruciating, and only relieved, if relievable at all, by the free administration of opium. There is a man at present in St. George's Hospital, with such a sloughy ulcer on the calf of the leg. Almost all his arteries appear to be rigid. There was another patient in the same hospital, for whom the toe was amputated in consequence of caries and dreadful pain; he had long been paralytic on the same side. After the amputation, a creeping, chronic sloughing was set up, which had not extended higher than the foot in the course of several months. The pain in the leg and foot were most excruciating, the poor man often shrieking out with agony. The arteries in this man were extensively diseased, the circulation remarkably torpid. When the abdominal aorta is suddenly tied, the effect may be said to be an extreme degree of this same affection, and in the case of Mr. James the arteries were diseased to boot. We are therefore inclined to view the agonizing pain in the lower limbs, as dependent, in that case, on the sudden

arrest which their circulating system received; in short, on the ligature of the great artery, and on that alone.

We now pass to the case of Mr. Crampton.

II. *Case of Aneurism of the External Iliac Artery, in which a Ligature was applied to the Common Iliac Artery.* By PHILIP CRAMPTON, M. D. F. R. S. &c. &c. &c.

The following sentiment, with which Mr. Crampton opens his paper, is just.

"To the practical surgeon it will lose nothing of its interest, either because it is not the first, or because it has not been successful. In fact, paradoxical as it may appear, the progress of surgery is more likely to be advanced by a faithful account of unsuccessful than of successful cases. In the successful cases nature performs her work in secret, and often leaves us at a loss to determine whether the success which we witness is to be attributed to the efforts of art, or to the unassisted resources of nature. In the unsuccessful cases, on the contrary, we have usually an opportunity of examining after death the effects of our operations, we see the results of those efforts which in concurrence with or in opposition to ours, nature makes for her relief, and are thus enabled to discriminate between the means which are likely to advance, and those which are likely to retard her work. I am further induced to submit this case to the consideration of the surgical profession, because in the operation I adopted a proceeding different from Mr. Mott's, and one which renders the tying of the common Iliac Artery, or even of the Abdominal Aorta itself, (*so far as the operation itself is concerned,*) comparatively easy and safe."

Unsuccessful cases teach us the morbid anatomy of operations, and the same necessity which exists for the study of the morbid anatomy of diseases, must also exist for the study of it here. But as morbid anatomy in general is not all in all, neither is it to be looked on as our polar star in the science of surgery. Fatal cases are advantageous only, in teaching us to prevent others from becoming so. We must study cases which end well with at least as much diligence as those that end ill, or we shall grow mere morbid anatomists.

Case. Private P. M'Gowan, 8th Foot, aged 30, hitherto healthy, was admitted into the General Hospital, Phœnix Park, Dublin, on the 8th of July, 1828, under the care of Mr. Crampton. There was a pulsating tumour, extending from about three inches below the crural arch on the right side to within three inches of the umbilicus. It was divided by a furrow in the line of Poupart's ligament into two portions. The lower or femoral was scarcely compressible, and, though throbbing strongly, had not the peculiar aneurismal thrill. The upper portion formed an obvious swelling in the right hypogastric region, was soft and compressible as if filled with fluid blood, and at a particular point, three inches above the crural arch, the aneurismal thrill was unusually distinct. There was also a pulsating and compressible tumour, about the size of a pullet's egg, in the right ham. The man complained of great pain in the thigh and leg; pulse 110, full and throbbing; tongue white; little appetite.

He attributed the disease to a fall in wrestling, received about nine months previously. He felt little pain at the time, but two days afterwards he observed a small pulsating tumour "at the rim of his belly." He con-

tinued at his duty till the 20th of May. During the last fortnight the tumour had rapidly increased, and the pain was so severe that he was willing to submit to any operation. He was bled, purged, put on fever diet, and took tincture of digitalis. The blood for the first four bleedings was highly buffed and cupped, on the 5th it had a natural appearance. On the 18th of July he was considered in a proper state for the operation, which was performed in the presence of professor Colles, Macartney, and Wilmot, Mr. Stringer, (the surgeon of the hospital,) Dr. Ramsay of Dundee, and other gentlemen. The steps of the operation must in justice be given in the words of the distinguished operator and author.

"The first incision commenced at the anterior extremity of the last false rib, proceeding directly downwards to the os ilium, it followed the line of the crista ilii, keeping a very little within its inner margin, until it terminated at the superior anterior spinous process of that bone, the incision was therefore chiefly curvilinear, the concavity looking towards the navel. The abdominal muscles were then divided to the extent of about an inch, close to the superior anterior spinous process, down to the peritoneum; into this wound, the fore finger of the left hand was introduced, and passed slowly and cautiously along the line of the crista ilii, separating the peritoneum from the fascia iliaca, the peritoneum touching the fore-part, and the fascia iliaca the back part of the finger. A probe-pointed bistoury was now passed along the finger to its extremity, and by raising the heel of the knife, while its point rested firmly on the end of the finger as on a fulcrum, the abdominal muscles were separated from their attachments to the crista ilii by a single stroke. By repeating this manœuvre, the wound was prolonged until sufficient room was obtained to pass down the hand between the peritoneum and the fascia iliaca. Detaching the very slight connexions which these parts have with each other, I was able to raise up the peritoneal sack with its contained intestines on the palm of my hand, from the psoas magnus and iliacus internus muscles, and thus obtain a distinct view of all the important parts beneath; and assuredly a more striking view has seldom been presented to the eye of the surgeon; the parts were unobscured by a single drop of blood; there lay the great Iliac Artery, nearly as large as my finger, beating awfully at the rate of 120 in a minute, its yellowish white coat contrasting strongly with the dark blue of the Iliac Vein which lay beside it, and seemed nearly double its size; the ureter in its course to the bladder lay like a white tape across the artery, but in the process of separating the peritoneum, it was raised from it with that membrane to which it remained attached. The fulness of the Iliac Vein seemed to vary from time to time, now appearing to rise above the level of the artery, and now to subside below it. Nothing could be more easy than to pass a ligature round an artery so situated. The fore finger of the left hand was passed under the artery, which with a little management was easily separated from the vein; and on the finger, (which served as a guide,) a common eyed probe furnished with a ligature of moistened catgut was passed under the vessel. A surgeon's knot was made in the ligature, and the noose gradually closed, until Mr. Colles, who held his hand pressed upon the tumour, announced that 'all pulsation had ceased!' A second knot was then made, and one end of the ligature cut off short. On examining the vessel after it had been tied, it was found to be full, and throbbing above the ligature, but empty and motionless below it. The external wound was united by three or four points of suture, and supported by long straps of adhesive plaster. The operation was completed in twenty-two minutes; the patient, who was a firm minded man, made no complaint during the operation, not even when the ligature was closed upon the artery. The tumour, immediately after the operation, was diminished nearly one-third, the diminution being confined to the abdominal portion; ten minutes after the operation, the pulse was 96; at 7 p. m. Mr. Stringer, finding the pulse full and bounding, took 20 ounces of blood from the arm; at 10 p. m. I found him tranquil, no pain, pulse 88, the limb, with the exception of the toes, warm: Saphena Vein full; additional flannel was wrapped round the foot." 163.

Next day the toes were not quite so warm as those of the other foot. The bowels not being open, he was ordered castor oil and an enema if required. These were not sufficient, but calomel, with castor oil, and an enema of turpentine were effective on the 20th. In fifty hours after the operation, Mr. Corr, a house pupil, remarked that there was an obscure pulsation in the tumour. On the 21st, the pulsation in the whole tumour was decided, but there was no thrill. There was neither pulsation in the femoral artery nor in the aneurism at the ham, which was reduced to half its original bulk. The pulse was 88. The thermometer at the groin stood at 98, at the hams 97, at the ankles 94, at the ball of the *left* great toe 87, at the right 88. On the 22d the pulsation was thought to be accompanied with an obscure thrill, and on the 24th the pulsation in the abdominal portion of the tumour was rather more distinct. He was bled in the erect posture to deliquium, had fever diet, and 20 drops of tinct. digital. every third hour. On the 25th the pulsation was more distinct, the thrill quite perceptible; there was no pulsation in the femoral artery. The blood drawn was buffed and cupped, and 12 ozs. more were abstracted. The quantity of digitalis was increased to 30 drops; fever diet. The ligature came away in the night and was lost in the bed. Whilst turning in bed on the 26th, he suddenly felt a severe pain in the thigh and knee, as if the knee was tearing off him; and the fore part of the thigh was all numb. In ten minutes the pain subsided. From the early return of the pulsation, with so much more strength than could be expected if the tumour were supplied by anastomosis only, it was concluded that the catgut ligature had become macerated and given way, a supposition that proved but too well founded. On the 28th he appeared better, and the wound was nearly healed. At 6, p. m. whilst sitting in his bed, the blood suddenly gushed from the wound in a torrent, he fell backwards, and in less than a minute he expired. On the following day the body was examined in the presence of the gentlemen who had witnessed the operation.

Dissection. "The intestines being removed, the peritoneum raised, and the great abdominal vessels laid bare, the common iliac artery, at about three-fourths of an inch from the bifurcation of the aorta, was lost in an oblong tumour, about three-fourths of an inch in diameter, and one and a half in length; the tumour terminated upon, but did not communicate with, the aneurismal sac. On cutting into the tumour, about half an ounce of greenish pus flowed from the wound and discovered the artery, which appeared somewhat contracted at one part, and its coats deeply indented, but not cut through, marking the place where the ligature had been applied. On blowing into the iliac artery from above, bubbles of air escaped freely from the external wound from whence the blood had issued; water injected by a syringe escaped by the same passage; clearly establishing the important fact, that the ligature, which was of cat-gut, had been dissolved by the heat and moisture of the wound, and thrown off, before the obstruction of the artery, or the coagulation of the blood in the aneurismal sac, had been completed. It further appeared that the dissolution of the ligature had caused a small abscess to form in the place which it occupied. On slitting up the artery, the internal and middle coats were found to be completely divided in the whole circumference of the vessel, and small portions of lymph adhered to its internal surface. The popliteal aneurism was far advanced towards a cure; the contents of the sac were quite solid, and the tumour was reduced to about the size of a walnut; the artery, for six inches above the sac, was filled with a firm coagulum. 168.

Mr. Crampton concludes, from this case, that the operation of tying the common iliac artery is not only feasible, but easy. The difficulties encountered by Valentine Mott were occasioned by his having begun his incision *too low*. This brought him in contact with the aneurismal tumour, from which he was obliged, with great labour and risk, to detach the peritoneum; then he had the whole mass of the tumour between him and the artery which he was to tie; and, lastly, he had the intestines pressing down upon him, and producing such a complication of difficulties as few men, except himself, could have surmounted. Mr. Crampton began his incision where Mr. Mott's terminated. Mr. Crampton does not pretend to decide if the operation of tying the aorta can ever be justifiable. But if such an operation should ever be determined on, he believes it could be readily accomplished by such a proceeding as that which he has now described.

It is impossible not to be struck with the contrast between an operation so truly surgical and scientific as this of Mr. Crampton's, and the one adopted by Mr. James. It is difficult to pronounce, that the operation of tying the common iliac can never be necessary; but of course no surgeon would resort to such a step, if, by any possibility, the external iliac could be secured in a part not implicated in the aneurismal tumour below. The operation is severe in every point of view, all good and careful surgeons would shun it if they could, but no man, we repeat, can venture to affirm that it might not, on particular occasions, be successful as well as justifiable.

It cannot but prove a source of regret, that so able an operator and scientific a gentleman as Mr. Crampton should have been betrayed into using a catgut ligature on such an occasion. We had thought that the varied and numerous experiments on catgut, fisherman's silk, and so forth, had left a firm conviction, in the minds of the profession, that a single silk ligature was most to be trusted. At all events, in performing so great an operation, Mr. Crampton should not have experimented on ligatures. He knew what single silk would do, but he did not know, and on such an occasion should hardly have tried, what catgut would not. He did try, the catgut rotted, and his patient was lost.

III. *An Account of the Dissection of the Parts concerned in the Aneurism, for the Cure of which Dr. Stevens tied the internal Iliac Artery at Santa Cruz, in* 1812. By Mr. Richard Owen, Surgeon.

Our readers will no doubt remember, that the internal iliac artery was said to be tied by Dr. Stevens for glutæal aneurism. The case was published in the Medico-Chirurgical Transactions, vol. V. p. 422. The patient was Maila, a negro woman. The disease had commenced nine months previously, and the operation was performed by Dr. Stevens on the 27th of December, 1812. In six weeks the woman was perfectly well, and she enjoyed good health for 10 years, when she died of an affection of the chest, in 1822. Dr. Stevens examined the parts within the pelvis in the presence of Dr. Kerr, and other medical gentlemen of Santa Cruz. He ascertained, by injection, that the internal iliac artery had become impervious at the

part where the ligature had been applied; and he found that the ischiatic artery was continued, in the character of a ligamentous chord, to the place of its exit from the pelvis. The glutæal artery was pervious at its origin.

On Dr. Steven's arrival in this country, he deposited the preparation in the Museum of the Royal College of Surgeons, and the dissection was intrusted to Mr. Richard Owen. The result of his investigations is now published, and all must feel an interest in learning the particulars.

As a preparatory step, Mr. Owen threw in some fine injection by the profunda; it ran out freely at the opening which had been made in the origin of the glutæal. The external and internal iliac arteries were given off in the usual manner. The left internal iliac had become obliterated just below the origin of the ilio-lumbalis. In the state of a ligamentous cord, it descended towards the ischiatic notch for the space of an inch, and then, suddenly resuming its natural diameter, it again became pervious, and so continued for the space of half an inch. The glutæal artery arose from the lower part of this space; a sacro-lateral vessel from about the middle; and the obturator artery from the upper part of it. The latter vessel was entirely obliterated; but the sacro-lateral was pervious, of the size of a crow-quill, and passed inwards to the second sacral foramen. The glutæal artery, of its natural size, received close to its origin two vessels, as large as the preceding, given off from the sacro-lateral artery, near the third and fourth sacral foramina of the left side. The anastomoses of the sacro-lateral with each other and the sacro-median were large and tortuous. Immediately after the origin of the glutæal artery, the ischiatic, obliterated and cord-like, passed on to the lower part of the ischiatic notch.

The glutæal artery was in a healthy condition, and of the natural size. An elongated tumour, situated between the tuberosity of the ischium and the great trochanter, indicated the true seat of the original disease. This tumour, in length three inches and a half, and in breadth two thirds of an inch, was of that branch of the sciatic artery which seems to form its continuation, and accompanies the nerve. It consisted of layers of condensed cellular membrane, and the peculiar fibrous arterial coat. It contained a quantity of dark-coloured granular, not lamellated, coagulum, which, when removed, discovered the internal surface of the sac somewhat irregular, and raised in small patches by the deposition of soft matter. In some places, it appeared to retain the smooth character of the arterial lining membrane. From the ischiatic notch to the tumour, the artery was completely choked up, its texture altered, and the remains of its cavity filled with indurated and partly calcareous matter. From the lower part of the tumour, the sciatic artery was continued down the posterior part of the thigh, nearly as large as the femoral in front. Its cavity was not proportionally great, for its coats were at least one-half thicker than any artery of the same size with itself. It was obliterated for about the space of an inch below the sac, and became pervious after receiving an anastomosing vessel from the arteria profunda.

A vessel ramifying between the glutæus maximus and medius, and distributing branches to these muscles, was connected with the commencement of the sac, from which it had probably arisen. It did not however, open into it, but, becoming contracted near the point of attachment, it there gave off a small artery to the quadratus femoris, and received its blood by anas-

tomosing, near the crista ilii, with a superficial branch of the glutæal. A smaller vessel was similarly attached to the lower part of the sac, but did not communicate with it; for the blood which it received from branches ramifying in the neighbourhood, was diverted from the sac by a small branch, given off at the point of attachment.

Sir A. Cooper examined the preparation, and having himself laid open the remains of the sac, felt perfectly satisfied of the existence of the aneurism and obliteration of the internal iliac artery by Dr. Stevens' operation.

The foregoing is a very interesting dissection, and science, as well as justice to Dr. Stevens, demand that the public should possess the particulars. We know that doubts have been entertained respecting the performance of the operation by Dr. Stevens, and, without questioning the propriety of scepticism in such a case, we are happy that the preparation has stamped the truth of the narration of the operator. It is evident that Dr. Stevens was mistaken in supposing that the aneurism arose from the glutæal artery; it sprung from the ischiatic. It is remarkable that, after the lapse of ten years, loose coagula should be found in the sac. The cure was not effected by the complete arrest of the circulation through the artery. Probably this seldom happens. The ligature having been applied on the internal iliac, below the ilio-lumbar, the blood got round into the trunk through the medium of the sacra-media and sacro-lateral branches. The glutæal was thus supplied and the ischiatic, but the current in the latter was effectually stemmed, and its cavity became obliterated to the distance of an inch below the sac. Now it is singular that the blood should coagulate in the ischiatic artery and not in the glutæal, although both were placed in very similar circumstances, quoad the circulation. The glutæal, however, received more immediately the blood from the sacro-lateral branches. The circumstance of the internal iliac becoming pervious below the ligature, is not much to be wondered at, for it is not uncommon for the femoral artery to be pervious between the ligature and the aneurismal sac, although the latter shall become obliterated.

Besides this operation of Dr. Stevens', the internal iliac artery is said to have been tied four times. The second operation, reckoning that by Dr. S. as the first, was performed by Mr. Atkinson, at the York County Hospital. The patient died nineteen days after the operation. An analysis of the case is given in Cooper's Surgical Dictionary. It is not clear whether the disease was in the glutæal or ischiatic. The third case is said to have been successful—the operator, an army surgeon in Russia, on whom the Emperor Alexander settled a pension. The fourth operation was performed by Mr. Thomas, of Barbadoes. The patient died, and the preparation has been deposited by Sir Astley Cooper in the Museum of Guy's Hospital. The fifth and last case is related in the American Journal of the Medical Sciences, for February, 1828. It was successful, and the operator was S. Pomefroy White, surgeon, Hudson, New York. Dr. Stevens remarks that Mr. White's character is unimpeached in his native country.

With the enumeration of these cases, we take leave, for the present, of the operation of tying the internal iliac. If a case should present itself in which it should be deemed justifiable, our readers may perceive what the real or imputed success of their predecessors has been in its performance.

VI.

ON THE RECENT IMPROVEMENTS IN THE ART OF DISTINGUISHING THE VARIOUS DISEASES OF THE HEART, &c. By *John Elliotson*, M.D.

LECTURE II.—*Affections of the Lining Membrane of the Heart.*

THE lining membrane of the heart's cavities and valves is occasionally found intensely red, the deep colour generally extending to the aorta or pulmonary artery, and not to be washed away by water, except by maceration of several days' continuance. This cannot always, Dr. E. thinks, be ascribed to the imbibition of blood; because frequently no blood is found in contact with the reddened part—and the artificial application of blood to the interior of an artery during 48 hours, has failed to redden it to the same degree.

"I have seen the heart and aorta quite empty where this redness existed. Neither can it be ascribed to congestion from dyspnœa, for I have seen it where death had taken place in a moment in the midst of perfect general health; nor to decomposition, for I have witnessed it on the day following death in cold weather. I have seen it intense, even when all these conditions were united—fixedness of colour, freedom from the contact of blood, sudden death, perfect general health, and absence of decomposition. Of course, mechanical obstruction to the passage of the blood from the vascular system of the heart, or a softened state of the organ, either by disease or by incipient decomposition, will cause the blood in the substance or the cavities of the heart to redden the lining membrane deeply." 13.

Seeing, then, that these crimson hues of the heart's linings have been found under all kind of circumstances, and where the individual died suddenly in perfect health, we cannot help suspecting that, in all cases where we merely find the red tinge, without any other of the physical characters of inflammation, as injection of the vessels, thickening of the membranes, effusions of lymph, &c. the said tinge is to be attributed rather to imbibition than previous disease.

Dr. E. is not aware of any cardiac symptoms to which this inflammation could give rise, except rapidity of pulse—increased force and sound of the heart's action, exactly as occurs in pericarditis. When, indeed, the portion of membrane lining the valves is not only inflamed, but thickened and bound down by fibrinous exudations, we have the bruit de scie or the bruit de soufflet. If this sound be absent, Dr. E. presumes that the acute inflammation of the lining membrane can be distinguished from pericarditis, "by only the absence of pain in the particulur directions mentioned in the last lecture, and of tenderness on pressure applied in the manner pointed out."

"I have never opened a person who died with this acute affection; but four times I have suspected its existence when acute pericarditis was present. The only ground of my suspicions was the occurrence in these cases of a sound like that of a bellows with the contraction of the heart,—a symptom which the most assiduous French auscultators, Laennec, Bertin, Andral, Collin, do not consider as belonging to pericarditis, and which the experience of all my friends, accustomed, like myself, to employ the stethoscope in every case of

pectoral disease as well as my own, shows to be no symptom of mere pericarditis. Indeed, there is an impossibility in imagining how it should, for we hear it every day where no pericarditis exists, from any mechanical disturbance to the course of the blood in any point of its progress through the heart, or even through the arteries. In two of these four cases of acute pericarditis, in which I heard it, the symptoms of pericarditis were very mild; yet the sound was considerable, and it ceased after antiphlogistic measures had been employed. On the other hand, I have attended numerous cases of very violent and well-marked cases of acute pericarditis, and not heard it, though in none did I ever omit daily to employ the stethoscope, and, as well as some of my friends, have made this a point of careful investigation. In the two other cases, the symptoms of pericarditis were certainly violent, but, after they were entirely subdued, the bellows-sound continued as loud as before: evidently, therefore, not the result of the presence of pericarditis, but of those organic changes that every day give rise to the bellows-sound, and are often preceded by pericarditis, as I mentioned in the last lecture. For the same reason, I have known it not begin till all the symptoms of the pericarditis had actually subsided.

In acuto-chronic and chronic pericarditis this sound is not uncommon; and, when once it has begun, it may subside after some weeks, or continue till death, lasting, perhaps, for years; and depends not upon the pericarditis, for this may at length cease, and possibly the whole membrane concrete, but almost always upon chronic disease of the lining membrane about the valves and openings, or some induration or enlargement external to the openings or passages from the heart and compressing them, or upon dilation of a cavity behind an opening.

I have never opened a person whom I had seen labouring under chronic pericarditis and affording the bellows-sound *constantly*, in whom a diseased condition of an opening or passage from the heart did not present itself—in whom the opening or passage was not below its natural proportion to the cavity behind it, being itself lessened or compressed, or the cavity behind it increased, so that it was become virtually too small. The occasional simultaneous occurrence of acute inflammation of the lining membrane or substance of the heart, with *acute* inflammation of the pericardium, effusing lymph about the openings, inducing spasmodic constriction of them, or turgescence around them; and the tendency of the lining membrane and substance of the heart to become diseased, and of morbid depositions to take place externally to the roots of the two great arteries, when the pericardium is the seat of *chronic* inflammation,—are the reasons, I am satisfied, that the bellows-sound is ever heard in conjunction with the symptoms of pericarditis." 14.

The lining membranes about the boundaries of the cardiac cavities—like those about the parts of other cavities, are the spots most liable to be affected. Scirrhus and stricture of the alimentary canal chiefly affect the cardia, the pylorus, and the rectum—and ulceration in fever generally seizes on the termination of the ileum. The larynx and air-cells are the parts of the respiratory tubes which are mostly affected with ulceration—the lips are frequently affected with cancer—the cervix uteri and neck of the bladder with organic disease—and so inflammatory thickening, and all other diseases of the lining membrane of the heart, far most frequently occupy that portion which invests the openings, and assists to form the valves. We offer the following passage without comment, as it bears on a fiercely mooted point of physiology at the present moment.

"Perhaps I may be permitted to say a few words on the natural sounds of the heart's action. Besides the impulse which is given by the heart to the left side of the chest, its

action affords a distinct sound in health on applying the ear, either immediately to the parietes, or with the intervention of a solid medium. This sound is double, and indeed in many persons perceptibly so to themselves on lying upon the left side. The first part is heard at the moment the pulse is felt in the wrist or after the smallest possible interval: the second immediately afterwards. The first, according to Laennec, arises from the ventricular action; the second from the auricular. The first is rather dull and long; the second short and clear—a kind of smack. After the second, a short pause ensues, before the dull sound of the ventricles, the stroke of the heart's apex, and the pulse at the wrist, recur. The whole period is estimated by Laennec, at about one-half for the ventricular contraction, one-quarter for the auricular, and one-quarter for the pause. The sound of the auricles is heard best at the upper part; of the ventricles, at the lower part, of the cardiac region. The sounds of the left auricle and ventricle are heard best at the cartilages of the fifth, sixth, and seventh left ribs; those of the right auricle and ventricle, at the sternum.

When the passage of the blood from either ventricle is materially impeded, the sound which is synchronous with the pulse, and loudest at the lower part of the cardiac region, is changed to the blowing, whizzing shrill, or cooing character just mentioned; if the impediment is in the left ventricle—at the mouth of the aorta, it is loudest at the cartilages of the ribs to the left of the sternum; if in the right ventricle—at the mouth of the pulmonary artery, it is loudest at the sternum and to the right. The sound is often so loud, that it prevents the natural sound of the auricles from being distinctly perceptible till the ear or stethoscope is removed from the region of the ventricles higher,—to the region of the auricles.

When the impediment is at either of the auriculo-ventricular openings, the morbid sound is heard at the moment of the auricular contraction,—not synchronously with the radial pulse and the stroke of the heart's apex; and is generally loudest at the superior part of the cardiac region. It is loudest at the cartilages of the left ribs, when the left auriculo-ventricular opening is narrowed; loudest at the sternum and to the right, when the narrowing is at the right auriculo-ventricular opening. When an auriculo-ventricular opening is narrowed, and the morbid sound is heard at the auricular contraction, the action of the auricle is not instantaneous as in health, but rather slower, so that we may fancy we hear the cavity gradually empty itself. I do not think this slowness so observable in cases of narrowing of the mouth of the pulmonary artery or aorta.

Laennec's correctness in ascribing the first of the two sounds of the heart's action in health to the ventricle and the second to the auricle, has been called in question; some asserting that the first sound is the result of the auricular contraction, and the second of the ventricular; some that they occur at the moment of the dilatation, not at the moment of the contraction of the cavities; and some that Laennec was right in regard to the ventricular sound, but that the second sound cannot arise from the contraction of the auricle, as Harvey, Haller, Senac, all declare that the auricle may be seen to contract immediately before the ventricular action, and they consider, therefore, the sound which follows the ventricular to be produced by some unknown cause, and the auricular contraction to be without sound,—two very singular and very considerable suppositions. The alteration of the sound in narrowing of the respective openings, proves, I think, that Laennec is right. For if the opening from a ventricle is narrowed, the healthy sound ascribed by Laennec to the ventricles, is altered; and if the opening from an auricle is narrowed, the healthy sound ascribed by Laennec to the auricle is altered. An argument in favour of the priority of the auricular contraction has been deduced from the veins of the neck in some cases regularly swelling immediately before the pulse is felt. But the obstruction in the auricles, causing this swelling, does not, I apprehend, occur during the contraction of the auricles; for, at that moment, there is a free space in the ventricle to receive the auricular blood, and it is only a part of the auricle that has the power of contraction. The obstruction which produces the swelling must take place as the ventricle becomes filled and the auricular blood consequently accumulates; and therefore the swelling of the veins must be expected when the ventricles

will receive no more, viz. immediately before they contract, or while they are contracting. There is no wonder therefore that the arteries according to this account beat first; then a second sound of the heart is heard, I presume the auricular action; and then a short interval occurs before the veins pulsate—before the blood accumulates in the auricles previously to their contraction. The jugular veins are said by some, always to be dilated quite synchronously with the pulse of the arteries.*

From the occasional loudness of the morbid sound, wherever situated, (and I have sometimes heard it in various intensity at every part of the chest,) a difficulty sometimes occurs in deciding whether it originates on the left or right side. But a very careful examination of both halves of the cardiac region enables us in general to say distinctly that it is loudest on one side; and there we may always presume to be its source. Sometimes, but less frequently, a difficulty exists, from the extreme rapidity of the heart's action, as to whether

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* "Mr. Adams, Dublin Hospital Reports, vol. iv. p. 426, 436.

"Since the delivery of these lectures, Laennec's accuracy has been called in question by others; and the stroke of the heart's apex, and the first sound of the heart declared to happen before the pulse, and to be produced by the dilatation and repletion of the ventricle, and the second sound to occur at the moment of the contraction of the ventricles, and to arise from the flapping of the parietes of the emptied ventricles together.

"I would reply in the first place, as before, that when an obstruction exists at the mouth of the aorta or pulmonary artery, a morbid sound occurs at the moment Laennec supposes the ventricles to contract; and when at either auriculo-ventricular opening, at the moment he supposes the auricles to contract. This could not happen had he mistaken the periods of the ventricular and the auricular contractions.

"Secondly, when the pulse at the wrist follows the stroke of the heart, it does so after only a very minute interval—such as may be explained by the distance of the radial artery from the heart, and actually occurs decidedly *before* the auricular sound—that which is now declared to be the ventricular. Moreover, when the pulse at the wrist is observed to follow the stroke of the heart, the pulse at the innominata (so much nearer the heart) may be found to precede that at the wrist, and to occur all but simultaneously with the heart's stroke so that the relative distance of the parts explains the whole difference, and the pulsation of the arteries in all cases clearly arises from the stroke of the heart. If an artery is observed still nearer the heart than the innominata, no interval between its pulse and the stroke of the heart is perceptible. In four cases of aneurism of the ascending aorta, producing a strongly-pulsating tumour to the right of the sternum, this and the heart, when the fore-fingers were placed upon both, were felt, and by all seen, to pulsate quite synchronously. When the obstruction is at the mouth of the aorta or pulmonary artery, the preternatural sound I have always noticed synchronously with the pulse. When at an auriculo-ventricular opening, in the intervals of the pulse,—after or before the pulse. It sometimes in the latter case is so prolonged as to last till the pulse is again felt, so that there is no interval, but merely an equal alternation of the ventricular and the perternatural auricular sound: or even an interval occurs after the ventricular stroke, probably from the auricle not being disposed for contraction at the usual time, on account of its contraction having been so lengthened by the difficult escape of its blood that a longer repose is required than just during the ventricular contraction—here the auricular sound occurs first, then the ventricular, and then the interval.

"Thirdly,—the sounds considered by Laennec to be auricular and ventricular, are heard loudest, both in health and when morbid, at the seat of the auricles and ventricles respectively."

the morbid sound is heard at the ventricular or auricular contraction—as to whether the sound is heard at the moment of the arterial pulse or not. But by listening for a length of time and repeatedly during only one visit, the difficulty generally vanishes; the confusion which at first prevailed declines; and the coincidence and succession of the phenomena become evident: exactly as happens, when, on first surveying a large collection of visible objects, all are confused, and at length every object is perceived distinctly, or when a person listens for the first time to the healthy sounds of the lungs or heart, and finds all confusion, but by perseverance gradually distinguishes each with perfect accuracy." 16.

Besides the preternatural sound, there is sometimes a thrill perceptible on applying the hand upon the region of the heart—a tremulous motion resembling the purring of a cat—most frequently dependant on narrowing of the auriculo-ventricular aperture of the left side.

"I believe also that, when this opening is narrowed, the pulse is generally irregular in both force and frequency,—a peculiar combination well known to practitioners, in which several beats succeed each other in rapid succession and with tolerable force, while others again occur slowly, and with little force, perhaps so weakly that they can scarcely or not at all be perceived, although at the heart the pulsation is evident enough. This most irregular pulse is thought by Mr. Adams to be pathognomonic of narrowing of the left auriculo-ventricular opening. Corvisart thought extreme irregularity of pulse in both force and frequency to characterise narrowing of the aortic opening. I do not happen to recollect a pulse irregular in force and frequency in a single case of narrowing of the aortic opening solely, while I know that it is very common in the narrowing of the left auriculo-ventricular opening, though possibly not peculiar to it, nor indeed to narrowing of any opening. Mr. Hodgson also mentions, that, in narrowing of the left auriculo-ventricular opening, there is often a double pulsation of the heart, *i. e.* two beats of the heart to one of the wrist—a pulsation of the heart from the action of the ventricle, and another from the action of the auricle. He appears to attempt to explain the fact, but this able surgeon expresses himself in rather an obscure manner. 'The auricle,' he says, 'first acts, and propels its contents into the ventricle; but, from the contraction of the communication the blood is not, as in the natural state, poured at once into that cavity. The ventricle, though imperfectly filled, contracts, and forces the blood into the aorta. Thus there is a pulse caused by the action of the auricle, and another by that of the ventricle, so that for every pulsation at the wrist, two are perceptible at the heart.' This does not appear to me a satisfactory explanation. The truth is, that in health there is a double action of the heart—one of the auricles and another of the ventricles—perceptible to the ear; though this was not generally noticed at the time Mr. Hodgson wrote. When the left auriculo-ventricular opening is narrowed, so that the blood can be only squirted into the ventricle, this auricular action is sometimes very distinct to the hand, in the condition of a thrill or purring, which is what Mr. Hodgson had remarked and called 'an irregular thrill (I use his own words), or *bruissement*, as Corvisart terms it, rather than a distinct pulsation.' Sometimes it is a distinct shock, and in another sentence Mr. Hodgson speaks of it as such, saying, 'Thus there is a pulse caused by the action of the auricles, and another by that of the ventricles;' 'nor is the auricular pulse trifling.' This happens only, when the walls of an auricle are increased in substance—are in a state of hypertrophy, so that they act with a force approaching to that of ventricles, and a double stroke of the heart may be felt by the hand. That this, and not the imperfect repletion of the left ventricle by which it acts twice, is the reason of the double stroke, appears to me shown by the fact that, when it has been observed, the auricle or auricles have always been hypertrophied, and in some cases the auriculo-ventricular opening not at all narrowed; and, secondly, that it is not observed,

however narrow the auriculo-ventricular opening, if the auricle is not hypertrophied,—and, indeed, this hypertrophy is rare, as the obstruction usually produces dilatation and thinning." 17.

Another phenomenon resulting from narrowing of the left auricular opening is smallness of the pulse. The small quantity of blood thrown into the left ventricle at each auricular contraction may account for this diminution of pulse—but the same diminution takes place when the aortic aperture of the chamber is contracted, and the distinction can then only be ascertained by the sounds of the heart. Little indeed can be known by the smallness of the pulse alone. The size of the ventricular cavity may be so diminished as to produce a remarkably small pulse, of which we have given some curious examples in this Journal, from our own practice.

After a great many sensible observations on the *bruit de soufflet* and its causes, (which, by the way, are not yet clearly ascertained,) Dr. Elliotson goes to other points.

"Instances of obstruction at the mouth of the aorta are very common; indeed I am rarely without two or three such cases among my hospital patients, and I have never found this morbid appearance, where auscultation had not clearly shown its existence during life, by the constant preternatural sound at the moment of the ventricular action, and solely or most loudly in the region of the left ventricle.

Obstruction at the opening of the bicuspid or mitral valve is next in frequency, and I have never seen it, excepting once, where it had not during life produced some of these preternatural sounds constantly at the moment of the auricular contraction—in the intervals of the stroke of the heart, and solely or most loudly in the left half of the cardiac region—and at the cartilages of the left ribs, unless the left auricle and perhaps ventricle were dilated, when the upper part of the left half of the heart extends so much to the right, that the sound of the left auricle is often heard at the sternum or even still more to the right.

The right auriculo-ventricular opening I have never seen narrowed alone, and of the six instances of decided bellows-sound in the region of the right ventricle, and at the moment of the ventricular action, investigated by me after death, although two disclosed obstruction of the mouth of the pulmonary artery, as I have already stated, three occurred in the opposite state of the opposite opening in the ventricle—there was a permanent patency of the right auriculo-ventricular opening. The first instance occurred in a female twenty-seven years of age, who had suffered several attacks of acute rheumatism, the first of them eleven years previously, and for eight years had been subject to violent palpitation, dyspnœa, and pain in the region of the heart, with a sense of stricture and smarting in the front of the chest when supine, and of suffocation on exertion or mental emotion. The bellows-sound was heard in two parts of the cardiac region, and at the two periods of the heart's action. It was heard in the region of the left auricle, in the intervals of the stroke of the heart; and in the region of the right ventricle at the period of the ventricular action—at the moment of the pulse; and this constantly, for I examined her more than once after a long interval. The sound in the left and upper part of the cardiac region, at the moment of the auricular action, showed that the mitral or bicuspid valve was diseased, and the left auriculo-ventricular opening narrowed. There was a further confirmation of this opinion, if confirmation were necessary, in the circumstance of the pulse being small,

though the heart acted violently and irregularly in strength and frequency. The bellows-sound in the right half of the cardiac region, and at the moment of the ventricular action, showed affection of one of the openings of the right ventricle. Never having read of a permanent patency of a cardiac opening and its effects, nor met with an example of it, I hastily pronounced that, besides the narrowness of the mitral opening on the left side, there was an obstruction in the right ventricle at the mouth of the pulmonary artery. If permanent patency is a cause of bellows-sound, I ought to have only said affection of the right ventricle at one of its openings. For, on inspection, the course into the pulmonary artery was apparently free, but the tricuspid valve was bound down on one side, and therefore half useless, leaving a certain degree of passage to the blood of the right ventricle back into the right auricle when the ventricle contracted. The left ventricle was greatly hypertrophied and dilated, and the right auricle greatly dilated,—the former of which states had been indicated by the great force of the left ventricle, and the latter by the loud clear sound of the right auricle.—Very soon afterwards, I was desired to see a patient belonging to one of my colleagues, labouring under disease of the heart. Auscultation instantly showed hypertrophy of the left ventricle, and dilatation of the right auricle, and there was the bellows-sound in the right ventricle at the moment of the ventricular action. This last symptom caused me to expect disease at one of the openings of the right ventricle. The patient died the same day. The left ventricle was found hypertrophied, the right auricle dilated, and the tricuspid valve partially bound down, and therefore partly useless.—I witnessed a third instance of the bellows-sound in the right ventricle at the time of its action, in a negro, under the care of another of my colleagues; but the specimen, I believe, was not preserved. The left ventricle was hypertrophied, and the right auricle dilated. In these cases, the opening was not organically narrowed, nor the valve thickened, but simply bound down in half its extent. Had the valve been completely bound down, regurgitation would have been too free, I conceive, for the bellows-sound to have been produced. Playing partially, it left a narrow passage only back into the auricle.

A permanent patency of the tricuspid or mitral valves when these are thickened and their opening narrowed, is not uncommon. I doubt whether the semilunar valves of the aorta or pulmonary artery could be much bound down: they may be rendered partly useless, but are then always thickened, and ruptured, or their opening diminished. Neither, indeed, have I ever noticed the mitral valve to be bound down: though the bellows-sound in the left half of the heart, and disease of the mitral as well as of the semilunar valves, is of every day occurrence.

I do not recollect any allusion to this morbid state of the valves, except in the Annals of Medicine and Surgery, for 1816, in which a dissection is mentioned, and, among various morbid appearances, it is said that the tricuspid valve was partially bound down. Neither have I discovered in Laennec, Andral, Collin, or Bertin, any account of permanent patency from inutility of valves as a case of constricted mitral opening with great dilatation of the left auricle, in which there was a loud bellows-sound at the *auricular* action, and loudest in the region of the left auricle, as inevitably must have happened, but perceptible also in the region of the right auricle. The circumstance of the sound being perceptible in the region of the right auricle, he ascribes partly to the right auriculo-ventricular opening being so large that the tricuspid valve, which was diseased, was insufficient to close it. But he appears to me in error. It is very common to hear the bellows-sound, whether auricular or ventricular, in *both* halves of the cardiac region, when its source is in one only, at least in the left only. The sound, however, is always loudest in the half which is its source. And this extension of the sound is most remarkable when the cavity is dilated, the opening of which is diseased: for the cavity, at least the left, then encroaches upon the region of the other half of the heart. Now this actually was the fact in Dr. Bertin's case. The auricles were both dilated, but the left,—the seat of the bellows-sound, was dilated one-third more than the right. Besides, that he was wrong is farther shown by the bellows-sound occurring at the *auricular*

contraction on the right side no less than on the left where its source was the narrowness of the left auriculo-ventricular opening. Had the permanent patency of the right auriculo-ventricular opening caused the extension of the sound to the right side, it would have been heard at the *ventricular* contraction, for the inutility of the valve would have operated at no other time—could have made no difference to the course of the blood from the auricle.—The opinion of the permanent patency of a cardiac opening from any cause, as a source of the bellows-sound, I heard first from Dr. James Johnson. Who originally suspected it, I cannot say. Dr. Johnson imagined he had learnt it from Laennec and other writers upon auscultation; but, as I have already stated, I have found no other notice of it than the erroneous view of Bertin. Preternatural patency sometimes arises from dilatation of the cavity on either side, and enlargement of the opening, so that the valve though healthy, has become insufficient to close it entirely, leaving a narrow passage for regurgitation.*—I may mention that a relative narrowness of an opening occasions the *brouit de soufflet* as well as an absolute narrowness—*i. e.* the size of the opening remaining the same, but the cavity behind it becoming dilated, and its walls perhaps thickened, the natural proportion between the two is lost, and the effects of real and absolute constriction are produced. This I think I have seen in more than one case of dilatation and hypertrophy of the left ventricle.—The silence of authors upon the morbid patency of the cardiac openings from the adhesion of the valves, except in the one case in the London Annals of Medicine and Surgery by Dr. Carbut of Manchester, inclines me to believe that many cases in which the bellows-sound had been heard and yet no morbid appearance was discovered to explain it, were probably cases of morbid patency which was entirely overlooked; more especially when I reflect that no fewer than three cases of this kind have occurred to me during the last few months.

Still in all the three cases in which the tricuspid was bound down, and the bellows-sound had been heard, there was hypertrophy or dilatation, or both, in some compartment of the heart, and this might probably have so affected the opening of the cavity at which the sound was heard, as to contribute to the production of the sound: in all three, the left ventricle was hypertrophied and dilated, and the right auricle greatly dilated. This is further probable from the fact, that, when the tricuspid has not been bound down, and there was hypertrophy or dilatation or both, in the left side of the heart, or dilatation of the right auricle, I have frequently heard the bellows-sound, auricular or ventricular: and yet, although I cannot imagine the bellows-sound to have any other than a mechanical cause, the relaxed state of the parts after death allowed no affection of the opening of the auricle or ventricle to be discoverable. And further, to prove that the cause was mechanical, a purring thrill was *felt* by the hands, in some of these very instances, at the moment of the *sound*.

Another source of the many instances of declared absence of morbid appearance to explain previous bellows-sound is, I am convinced, the custom of slitting up the openings, especially the ventriculo-arterial, without previously passing the fingers through to ascertain whether any constriction exists. For this sometimes occurs at the root of the valves, though their appearance is perfectly healthy; and the slightest diminution of an opening, whether from internal causes or external pressure, is sufficient to induce a degree of

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* See, for instance, Dr. Abercrombie's Paper on the Pathology of the Heart, in the Edinburgh Medico-Chirurgical Transactions, Vol. I. Cases 16 and 17.

In Case 17, corrugation of the valve and morbid enlargement of the opening conspired.

In all three the auricle was greatly dilated, and in one the ventricle also.

bellows-sound such as may readily escape detection, and not have produced any marked derangement of circulation or respiration.

It is also to be remembered, that those who are not familiar with the diseases of the heart, very easily pass over a morbid appearance, just as those who have not spent some time upon auscultation, pass over the most morbid sounds during life, although they listen.

I should be inclined to consider this morbid patency of the tricuspid valve, or some change of the opening of the right ventricle by the hypertrophy or dilatation of some part of the heart, the most frequent cause of the bellows-sound in the right ventricle. For thickening and narrowing of the valves on the right side of the heart are comparatively so rare that Bichat declared he never saw disease in them. Bertin, in the course of twenty years, met with important induration in the tricuspid, even of a cartilaginous character, but four times. Disease of the mouth of the pulmonary artery is still rarer. A case is mentioned by Bertin, where a sort of hymen existed at the mouth of the pulmonary artery; but it was probably congenital, and this is the only instance of obstruction that he ever saw at that spot. Dr. Hue has just presented to the College an extraordinary heart, taken from a patient in St. Bartholomew's Hospital. The walls of the right ventricle appear grown up around the mouth of the pulmonary artery, so that the opening from the ventricle is no larger than the circumference of a goose-quill; and a short canal of this dimension had to be traversed by the blood before it reached the mouth of the pulmonary artery, which is of the usual size. This state was probably, like Bertin's case, congenital, for two additional and evidently congenital cavities exist in the substance of the heart—two supplementary little right ventricles,* one leading from the pulmonary artery, and the second from the first. A bellows-sound occurred in the heart, with venous congestion and dropsy. I have never seen obstruction from disease of the pulmonary semilunar valves. Bertin refers to two, one in Morgagni, and one seen by M. Louis at la Charité. But in both, as well as in that which he himself saw and which was just alluded to, both halves of the heart communicated, so that the right was in the condition of the left—washed by a portion of arterial blood, and it is under such circumstances that ossification or extensive cartilagination of the valves of the right half takes place. I have but once seen material induration of the tricuspid valve and narrowing of its opening; three times only impediment, visible after death, to the entrance of the blood into the pulmonary artery, and then, as I have said, not from any disease of the valves, but in two of them from the accidental situation of a piece of cartilage in the substance of the heart near the commencement of the artery, and in the third, Dr. Hue's case, from the right ventricle being grown together just before the origin of the artery. Yet I have three times seen the tricuspid partially bound down, without being thickened or otherwise diseased; the right auricle, however, being dilated. I have heard a bellows-sound at both sides, and at the ventricular action, from a piece of bone lying between the pulmonary artery and aorta, and very slightly compressing both; and several times I have heard it constantly at the ventricular action, in patients who died of disease of the left side of the heart, with enormous *dilatation of the right auricle which appeared necessarily to have compressed the aorta*, and in some even the pulmonary artery, especially in the supine posture. An increased thickness of the muscular substance, near an opening, without any disease of the valves, will cause impediment enough for a degree of the preternatural sound, though the diminution of the opening is not appreciable to any but an experienced eye." 21.

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* On Supernumerary Parts of the Heart, see Andral, Précis d'Anatomie Pathologique, T. II. p. 313, sq.

Dr. E. remarks, and the remark is important, that, "as the openings of the veins into the auricles are unprovided with valves, no morbid patency of them can give rise to an *auricular bellows-sound.*" Now the bellows-sound takes place at the same instant that the heart strikes against the side, as any person may convince himself of, who has a patient presenting the *bruit de soufflet*—and consequently this pathological fact negatives the new theory of the stroke against the ribs being produced during the dilatation of the ventricles. But we must bring this notice of Dr. Elliotson's second lecture to a conclusion, with the following extract.

"Besides these, the general symptoms of obstruction in the heart are dyspnœa, perhaps amounting to orthopnœa, palpitation, quickness, and intermittence, of the heart's action, starting up from sleep, paleness and leaden hue of the countenance, blueness of the lips and tongue, suffusion of the eyes, fulness of the under eyelid, anasarcous swelling of the face, and indeed of the whole body, generally commencing in the feet, paucity of urine, distention and pulsation of the jugular veins, flatulence, &c. The dyspnœa is usually greater when the disease is upon the left side, but chronic inflammation of the lungs, *i. e.* chronic bronchitis, so generally accompanies disease of every portion of the heart, and indeed is so common a cause of death in all cardiac diseases, that the dyspnœa is sometimes intense in obstruction on the right side. The distention of the veins is usually more considerable when the obstruction is on the right side; great obstruction, however, on the left side has the same effect, and so likewise has mere congestion or chronic inflammation of the lungs.

But these general signs are insufficient to point out the seat of the obstruction, and often indeed its existence, for they accompany all other kinds of diseases of the heart, and even many affections of the lungs, and the collection of fluid in the pleuræ; and I know that without the aid of the peculiar sounds which have been discussed, the most erroneous diagnoses are every day made. Long before any other symptom arises from the obstructing cause, these preternatural sounds indicate its existence, and point out cardiac affection which might not have been suspected till irremediable.

Disease of the valves generally produces or is occasioned by disease of the substance of the heart itself, so that other cardiac symptoms, as well as the preternatural sound, present themselves." 22.

In another article we shall present our readers with an analysis of Dr. E.'s third and concluding lecture.

VII.

Remarks on the Gibraltar Epidemic. By *David Barry*, M.D. Physician to the Forces.

Our readers are aware that, in No. 26, of this Journal, pp. 337—350, we gave the substance of a paper on the Gibraltar Epidemic transmitted to us by Mr. Fraser, surgeon of the Civil Hospital of that fortress. In publishing that paper, we merely abbreviated some portions, where we thought them capable of abbreviation, and quoted the others *verbatim et literatim*, with the exception of omitting or softening down a *few words* conveying strong personalities, but without altering a single passage or the sense of it from beginning to end. Of the truth of this we shall leave Dr. Barry him-

self to judge—for to him we instantly transmitted the original document, as soon as his paper in reply appeared. We told Dr. Barry the conditions on which we inserted Mr. Fraser's paper, and that we would be willing to publish his reply on the same terms. Sometime afterwards we received a kind of rescript from Dr. Barry, stating that, unless we inserted the whole of his reply, verbatim et literatim, it should not appear in our Journal. This seemed somewhat abrupt, and we hesitated not a moment to inform Dr. Barry that we would make no engagement to publish any paper before we saw it—and that, at all events, we would not publish his paper unless he allowed us the same discretion of softening down terms, or abbreviating unimportant details, as we had done with Mr. Fraser's paper. This, of course, was declined by Dr. Barry; and then appeared the following document which we shall now re-publish *entire*, of our own accord—but which we, perhaps, should not have published *entire*, had Dr. Barry confided his paper to our care.

"*To the Editor of the London Medical and Physicial Journal.*

SIR—The accompanying letter, as it now stands, addressed to Dr. JAMES JOHNSON, was originally intended to appear in his Journal, in reply to an article edited by him, in his last Fasciculus, and headed, 'Review of the Facts and Arguments brought forward by Dr. Barry, at the Royal College of Physicians, relative to the late Epidemic Fever in the Fortress of Gibraltar; by HUGH FRASER, Esq. Surgeon to the Civil Hospital, and late Assistant Surgeon 12th Regiment:' but as the Doctor insisted on being allowed to break up my letter into the shape of a review, and as I was naturally anxious that, if forced into a controversy, my arguments (such as they are) should be brought into action, in close column, unmutilated and undiluted by my adversary, I have thrown myself on your mercy, and now beg a place in your valuable and impartial pages.

There is no assertion contained in my letter that is not supported by reference to original, authentic documents, and, therefore, even those of your readers who may not have had an opportunity of making themselves acquainted with Mr. Fraser's paper will, I trust, find my observations worth their perusal, as tending to elucidate the history of the late Gibraltar epidemic.

I have the honour to be, Sir,

Your most obedient and obliged servant,

D. BARRY, M.D.

Welbeck street: Sept. 25th, 1830. *Physician to the Forces.*

Letter to Dr. JAMES JOHNSON, &c.

SIR—As you have not told us where Mr. Fraser's original paper may be referred to, I take it for granted that what you have given of it is merely a hash, sliced from the raw, unpublished material, and served up to your readers, 'with a little of my own sauce,' to give it an 'eclectic' flavor. It is to be hoped, however, that Mr. F. will not suffer his lucubrations to remain in this mangled state, and that he will bring them out himself, ere long, in all their native richness. *En attendant*, I am glad to perceive that you appear to know your man. You seem to consider him as a sort of Perkins' steam gun, sent in advance of the main body by the leaders of his party, to mow down all preliminary obstacles, by being made to pour forth an interminable stream of offensive missiles, whilst you, acting 'condenser' to the machine, as you very facetiously designate yourself, intersperse the muddy torrent of abuse with occasional little puffs of thin, editorial vapour, 'few and far between.' But I am trifling with your reviewing dignity, and shall now proceed to business; first assuring you, that nothing, not even the proof afforded by your last fasciculus, that your pages may be sometimes made the vehicle of personal acrimony, shall induce me to descend to the use of that vulgar weapon.*

* The plainest answer which we can give to the above good-natured effusion, is Dr. Barry's own letter received while this sheet was passing through the press.

1. Your friend Mr. F. begins where his conscience must have told him he would probably find it convenient to leave off, viz. by an apology. He commences the fight under cover of a rather gauche polo-post-futurum-kind of amende, thus: 'I shall be sorry if.' Tell him it is well; but remind him, at the same time, that when my paper, which he has so furiously attacked, was read at the College of Physicians in London, he was in Gibraltar; that it is still in possession of the College, and still unpublished; that he, most certainly, has never seen it, and that, therefore, he must not pretend to know any thing whatever of its arguments, and only so much of its facts as may be collected from the little volauvent à la periscope, which you were kind enough to toss up, at the time, from a memorandum given to you in an unlucky hour, by myself, and from memory. You now convert my simple facts into most learned postulates, (an honour for which I never designed them,) and in this form serve them up a second time. But 'facts are stubborn things,' as you and your protegé may find out hereafter.

2. Mr. Fraser tells you and your readers, that 'before the arrival of Dr. Pym in the garrison, in November, even the word contagion had become nearly obsolete,' &c. In reply to this, take the following letter from the principal medical officer to his Excellency the Lieutenant Governor through his military secretary. It is one of many similar documents of that period still fortunately existing.

'*Gibraltar; 24th Sept.* 1828, 9, *o'clock. Immediate. No* 869.

'Sir: Nothing has yet been done about the infected bedding at the Naval Hospital. Pray allow me to order it over the line wall at camp bay instantly, as much loss of life may be the consequence. The barrack master's plan of taking it direct to the sandpit is fraught with danger. It should be steeped in the sea for sixty hours at least before it goes to any place, where it may be mixed with other beds.

(Signed) 'J. HENNEN, M. D.'

'To Lieutenant-Colonel Marshall, Military Secretary.'

Can you, or your friend, quote any authority, living or dead, which affords stronger evidence of a full and perfect conviction of the reality of contagion, than the above? Pray compare this letter with those, by the same author of the 29th August immediately preceding, since become the Alcoran of the unbelieving localist.

3. When Mr. F. shall have redeemed his promise of, 'more of this hereafter,' relatively to a paper, which he states I 'drew up,' shortly after my arrival in Gibraltar, to prove the noncontagious nature and local origin of the epidemic, I shall reply; not before. I dare him to the proof.

4. 'The late epidemic (says Dr. Barry,) was a fever of one paroxysm.' My words in the original paper were, 'This disease, reduced to its most elementary form of expression, consisted of one, and only one, febrile paroxysm, terminating from the second to the sixth day, either in a rapid and permanent return to health, or in the precursory, but apyrectic signs of speedy dissolution, black vomit, &c.' Your friend pithily pronounces 'the definition given,' (and that without having seen or heard it,) to be 'based in ignorance or error.' In the next paragraph he gives his own definition, thus: 'It was a fever of a *continued form*,

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26 *Welbeck Street, 8th Nov.* 1830.

Sir—I have just seen the manuscript of Mr. Fraser's paper and hasten to convey to you this my unsolicited and unqualified acknowledgement, that you have given the paper, in your Journal, with the most perfect fairness and fidelity; and that in leaving out some parts, and in emending a few words, you appear to have been actuated by a wish to soften down the asperities of the original, without altering its purport.

Should any expressions of mine seem to indicate that I felt a different impression when I wrote my reply, I hereby retract them.

Your report of my paper, read before the Royal College of Physicians, in March last, I have already adopted, by stating that it was composed from a memorandum of my own, drawn up by myself from memory.

Should you think this communication worth inserting in your next Fasciculus, it is much at your service.

I remain, Sir,

To Dr. James Johnson, Your obedient servant,

Physician to the King, D. BARRY, M. D.

&c. &c. &c. Physician to the Forces.

N. B. Conscious of our own integrity on this point, we transmitted the original document to Dr. Barry, merely for his satisfaction. The above explanation is that of a liberal and generous mind, and is all that is necessary to free us from any suspicion of unfair dealing.—*Ed.*

in which cases of recovery, *the most perfect remissions took place.*' Now, sir, disdaining all attempts at sophism, of which I am accused, I would ask, can fever exhibit 'the most perfect remissions,' and at the same time, be 'of a continued form?' If we do not attach a conventional meaning to words, they must cease to be intelligible symbols. Need I refer you to CULLEN's account of remittent fever? Need I say the word *paroxysm*, as used by that celebrated nosologist, comprehends the whole drama of fever, the three acts, cold, hot, sweating; and that a perfect *remission* is the apyrectic interval between two of these complete dramas; whilst *exacerbation* means only a higher colouring of the middle act, when, as in continued fever, this act is long enough to admit of its shades being observed. Allow your friend to go on, and, depend upon it he'll try to persuade you, that a figure of a circular form can exhibit the most perfect angles.'

I shall not stoop to notice the intention to deceive, which your polished protegé appears capable of attaching to my definition, if it can be called one. He will not, surely, attribute this unworthy motive to his friend and colleague, Mr. PETER WILSON, in the view which he takes of the type of this fever, 'as it prevailed in Gibraltar in the Autumn of 1828,' in his Historical Sketch, published in the Lancet, No 354. vol. ii. p. 424. These are his words: 'A fact resulting from my own experience in Gibraltar, namely, that the fever under consideration, which every year appears there, and which in the Autumn of 1828, assumed the character of an epidemic, is as much a continued fever as our home typhus is. *As it exhibits, therefore, none of these remissions,* nor, even at a low temperature, ever breaks off into ague, it can be assigned no closer affinity to the family of intermittents, than results from the circumstance of its remote exciting cause being a product of the earth, or, in other words, not an emanation from the living body.' When it is recollected that Mr. P. Wilson was one of the medical officers of the civil hospital, where he resided during the whole of the epidemic; that he not only saw as many cases of the disease as Mr. F. but that he saw the very same cases; that he was the very originator and founder of the drain and privy pathology, and the Coryphæus of the non-contagion and local-origin sect, in Gibraltar; that, therefore, he is one of the last men in the world, who could be suspected of a wish to help me out of a scrape. When, I say, all these considerations are taken into account, his evidence must be deemed decisive of the nosological part of the controversy. Your friend's slip-slop descriptions, his 'lulls,' and 'commencements of a primary or temporary morbid association,' will probably induce you to part company from him on this point, and let him down *easy* in one of your next editorial parachutes. By the way, Mr. Wilson's clear, precise language on this subject will serve you for three or four very nice postulates.

5. Next comes a whole bundle of these things (postulates) which I am charged with having perpetrated, as to the cleanliness of the town of Gibraltar,* its municipal improvements, the comfortable condition of its poor, the moderate number of its population, &c. In order to beat down all these assertions at once, and to establish localism upon their ruins, Mr. F. gives, at full length, two official letters, [how did he procure the copies?] from Dr. Hennen to his Excellency the Lieutenant Governor. On these letters I shall merely observe that, when Dr. Hennen wrote them he was chief medical officer of the quarantine department, for which, independently of his military pay, he received one pound sterling per diem; that the ship Dygden had been admitted to pratique, *with his sanction*, about three weeks before;† that a rumour had now gained considerable credit in the garrison, that she had introduced the fever, then breaking out; that it could not be pleasant to Dr. H. to have it believed that an enemy had entered the fortress through the very pass for the guarding of which he was so liberally paid. But an enemy had actually made his appearance in the very centre of the citadel: who could he be? from whence had he come? The two letters answer these two questions. The first letter christens the stranger by the mystifying, pompous name of '*bilious, autumnal, remittent fever*,' with the word '*yellow*' occasionally appended.

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* Dr. O'Halloran, in his interesting work on the Yellow Fever of the South and East Coasts of Spain, published in 1823, thus expresses himself, (p. 183,) 'General Don, when he assumed the command of that station improved its condition so much that Gibraltar, from its being one of the most filthy towns in Europe is *now one of the cleanest any where to be seen.*"

† In the face of information from the Board of Health, and British consul of the province of Valencia, dated 22d July, 'that this ship was infected with the yellow fever,' and from the Spanish Consul of Gibraltar, who stated officially, on the 25th July, 'that a bad fever raged at the Havannah, by the latest accounts from that place."

This, as far as a name could go, was calculated to give him the air of a native scorpion. The second letter decides his birth and parentage, found in the drains and privies of district No. 24, by Mr. P. Wilson, who, to do him justice never acknowledged the fitness of the name. This letter, as you perceive, was penned at nine o'clock P. M., when, from the exertions of the day, the heat of the season, the pressure of great responsibility, the reports that had been spread, &c., the author's mind might not have been in that cool, unruffled state which the gravity of the occasion demanded. Indeed, the letter carries with it internal evidence of the justice of this remark. Read the three measures recommended to his Excellency's especial attention, as the *only means* of preventing a repetition of the horrors of 1813 and 1814.' viz.

1st. To sweep away certain sheds, lest they might become hot-houses of contagion.

2d. To appoint a committee to inspect these sheds and other unauthorized buildings.

3d. To order walking exercise for the police sergeants.

This mode of putting the case looks, I confess, rather ludicrous; but if you turn to the letter itself, you will find that I am fully borne out by its contents.

I shall reserve what further remarks I may have to make on these letters for a future occasion.

6. Surely your northern friend, Mr. Fraser, must be *daft*, or else there must be an error of the press, when he is made to say that 'the board of commissioners, the majority at least, came to the conclusion that there was not the slightest proof for referring the introduction of our epidemic to the ship Dygden, or to any other vessel.' You shall soon see how the majority stood. There were *seven* members only on the Board. Mr. F. gives the opininions of *two* of these members, against importation, and in favor of local origin. To save space and time, you will, I presume, allow Dr. Pym and myself to be stanch importers. Of the three remaining opinions, you may judge for yourself: they are as follows,

COLONEL FALLA.

'I am of opinion that the late epidemic was not of local origin, but from the strong presumptive evidence before the Board, that it was imported.'

(Signed) 'D. FALLA.'

'*Gibraltar; 30th April*, 1829.'

WILLIAM SWEETLAND, ESQ.

'After the most attentive consideration of the evidence which has been brought forward, I have discovered nothing which has carried conviction to my mind as to the cause or origin of the late epidemic fever. On the one hand, it has not been shown that any of the causes stated in support of the doctrine of its being of domestic origin, existed in a higher degree in the year 1828 than in many preceding years, when the garrison was free from that disease. On the other hand, no vessels arrived, during the last summer, having the yellow fever on board; nor has that disease discovered itself amongst any of the shipping in the port. In the absence, therefore of any proof, on either side, I must decline hazarding any opinion on a subject which has baffled the researches of the most learned physicians of all countries, and continues to do so.'

(Signed) 'WILLIAM SWEETLAND.'

'*Gibraltar; 30th April*, 1829.'

DR. BROADFOOT.

'From every thing in my power to learn on the subject investigated by the Board, I cannot believe that the late epidemic originated here; but, on the contrary, I think it was imported.'

(Signed) 'ALEX. BROADFOOT.'

Thus you perceive that, of the seven members, four 'came to the conclusion' that the disease was imported; two, that it was not; whilst one declined coming to any conclusion. You will find out more clearly, by and by, with whom you have embarked your controversial fortunes.

Mother Fani's Affidavit. In order to comprehend this, you must refer to the proceedings of the Anglo-French commission, where you will find a declaration, signed by all its members, M. Chervin amongst the rest, dated February 1829, setting forth that this good lady showed such a palpable determination to mislead (*tromper*) the commission, that her evidence could not be admitted amongst their documents. Thanks to the liberality of the French government, these papers are now printed, and may, I hope, shortly be seen by the public. In these papers, and in the proceedings of the British Board of Commissioners, there is some curious evidence, tending to prove that the stink from drains and privies,

on which you seem to lay so much stress, acted rather as a preventative against the fever, than as a cause of it, in Gibraltar in 1828.* By the way, I hope the College of Physicians will induce our government to print, *pro bono*, the documents connected with this epidemic. How it would abridge the badgering which I shall have to undergo from all the crazy endemic philosophers, who will now avail themselves of your '*condensing*' powers, which you are candid enough to confess you exercise, 'for the good of Mr. Fraser and the public.'

With regard to the nature of the disease of which the Fani children died,† you may consult the obituary register of the Roman Catholic church of Gibraltar, in which the word *febre* is opposite each of their names; also a certificate of the same, signed by the vicar, and laid before the Board of British Commissioners; the evidence of the man who tied the legs of one of them together, and placed the body, yellow with livid spots, in its coffin; the evidence of the woman who saw the other vomit black, and who declared that the child told her she had been on board ship the Sunday before; *enfin*, the posthumous evidence of the Doctor, Braulio Lopez, who attended them in their last illness.‡ Is Mr. F. soft enough to imagine that the relict of two smugglers would confess to him and his *confrères*, but, above all, to Mr. Shea, the government lawyer, that her family ever had any illicit intercourse with ships in quarantine? Which do you think would be most likely to deal in complicated 'made-up falsehoods, a boy not quite thirteen years of age, and a few washerwomen, or a hardened veteran smuggler? Such as the latter, however, (to use his own expression,) 'is the front and bearing of one channel, on which Mr. F. rests his proofs.'

As a judge of cases, do you not think that the case of *strangulated hernia* of old Fani is *well* made out? *pain in the throat*,§ '*no vomiting*.' The treatment, too: no attempt at taxis, no bleeding, no operation, though he had been seen by Mr. F. and others.

8. I have now arrived at the case of Mr. Fraser's servant maid. Her name, he will recollect, was Maria, 'a Portuguese; she had lived with him three years.' There can be no doubt as to her identity. He says that this woman was attacked 'on the *third* of August, 1828, by a fever, which he considered at the time, in common with Mr. Peter Wilson, late of this (the civil) hospital, to be one of those sporadical attacks of yellow fever, which every now and then appear there.' Mark this well, I entreat you! Mr. F. *now* solemnly asserts that this woman was attacked by yellow fever 'on the *third*.' I say that she was attacked by this disease on the *twenty-third* of August. Let this disputed point be the touchstone of our respective claims to honest precision in facts and dates, and therefore to public confidence and respect. As to the '*obliquity*' with which he charges me on this subject, I shall fling it indignantly back upon him, with such overwhelming conviction of misstatement, on his part that no ingenuity can ever extricate him from it. Should the dark spot which you allowed your protegé to attempt upon my probity be now fixed upon his own, he has himself to blame. But, after all, there is so much of vagueness, of the irritation of disappointment and party rancour about his whole paper, so much of the appearance of being pushed on by a coterie, that his *slight* anachronism, of *twenty days*, may be accounted for, without resorting to his own ungenerous imputation.

1st Evidence. The Commission of Origin and Cause, of which I had the honour of being a member, and secretary, aware of the great importance of *first cases* in the history of all epidemics, and anxious to obtain correct information as to the dates and circumstances of the earliest attacks of fever in 1828, resolved, at their first sitting in Gibraltar, on the 28th January, 1829, (4th resolution,) 'That all medical practitioners

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* It is recorded by Vilalba, the historian of Spanish Epidemics, that, in the great plague of London, the physicians ordered all drains, privies, and other sources of stench to be opened, and fully exposed, for the purpose of checking the contagion. They attributed much success to this measure.

† The first cases of fever that occured in Gibraltar in the autumn of 1828. 'Yet from the woman's own account (Mrs. Fani) little or no doubt can be entertained that it was the *fever*.' Wilson's Historical Sketch, *Lancet*, No. 352, p. 326.

‡ Extract: 'Some days before Dr. Braulio Lopez got sick, I was informed by him that the two children of Felix Fennic, or Fani, named Salvador and Catalina Fennic, had died of the black vomit in district No. 24. The former died on the 17th August, the latter on the 20th of the same month.'

(Signed) 'JOHN CORTEZ, Surgeon.'

Gibraltar: 30th January, 1829.

'To Dr. Barry, Secretary to the Board, &c.'

§ See Pym on Pain in the Throat, as accompanying Bulam, pp. 228-9.

within this garrison, civil as well as military, be officially called upon to furnish to the Board, by Friday next, a circumstantial return of the first case of disease which each of them may have treated, or which may have come to their knowledge, in this garrison, *last year*, and which they may have considered, then or since, *identical with the fever which has so lately prevailed here in an epidemic form*.' As it had been asserted by some, that sporadic cases of yellow fever appear annually in Gibraltar, care was taken to word this resolution so as to preclude all quibbling about the precise day when the disease assumed an epidemic form; and by taking in the whole of the year 1828, to prevent the possibility of having *a new first case* introduced, at any future period, under the pretext of its being looked upon as a sporadic, at the time.

A circular letter was immediately drawn up, containing the words of the resolution. It was dated that very day, signed by me, as secretary to the commission, and sent by an official messenger to every medical man in the garrison. The following is a true copy of Mr. Hugh Fraser's return to this circular.

'Sir: In reply to your letter of the 28th instant, I beg to inform you, that the first case of the epidemic fever, which came under my observation, took place in a child of Mr. Martin's, residing in No. 24 district, on the *eighteenth* August, 1828. The history of this family is so generally known, that I deem it unnecessary to say more. Should the Board of commissioners require any further information from me, I shall be most happy to give it.

(Signed) 'HUGH FRASER.'

'*Civil Hospital; 30th January*, 1829.

'To Dr. Barry, secretary to the Board, &c.'

This letter requires no comment when compared with Mr. F.'s present statement, 'that his own servant-maid was attacked by yellow fever, on the *third* of August.'

2d Evidence. The morning states drawn up by Mr. Tucker, then chief clerk in the principal medical officer's office, now deputy purveyor. Mr. Tucker then attended the civil hospital in a medical capacity, and knew this woman. He noted her, with Dr. Hennen, on the 2d of September, as convalescent from fever, with this remark, in his own handwriting: 'Servant to Mr. Fraser, who has been ill more than a week; treated in his own house.' She is again described in the morning state of the 3d of September: 'Mr. Fraser's servant-woman.' These two returns are the second and third of the kind made out that year: copies of both are now before me, authenticated by Mr. Tucker. Here I must beg to observe, that I have never met with more integrity, more correctness, nor more striking impartiality, than in this gentleman. To him is due, much of what has been left of accurate record, of that fatal scourge of 1828.

3d Evidence. The following will be found in Mr. P. Wilson's Historical Sketch, already quoted from the Lancet, No. 353, vol. ii. p. 388: 'But a servant-maid of the surgeon of the hospital became, towards the close of August, affected with fever, when only the case of the 21st of August had been admitted, and though she lived in the division of the hospital most remote from the ward where that patient lay, and was never known to have gone near him, it was artfully attempted to hook in her case, to form a link in the chain of contagious influence.'

I shall say nothing of the evidence of this woman's sister, who was employed in the hospital at the time, and in the age of whose infant this attack marked a monthly epoch; the girl's own declaration to those about her sick bed, 'that she had caught the *plaga*,' requesting her mistress not to come near her, &c.

Finding no account of this case in the books of the civil hospital, to which I had unlimited access, as principal medical officer of the garrison, during a part of 1829, I asked Mr. F. if he had taken notes of it? to which he replied, 'not at the time, but he had since, from memory.' Would he be kind enough to let me see them? 'No: but (added he,) you had better take no notice of it.'

Mr. Fraser may well say 'that it is not in ignorance this case is brought forward:' but let him now gather the fruits of his unworthy aspersion; let him suffer the recoil of the foul missile which he aimed at me; let him emerge, if he can, from the inevitable conclusion that he either deceived the Board of Commissioners in 1829, or the public in 1830.

9. Mr. Fraser, all through his paper, evidently piques himself upon using strong language, and indeed, (to give him his due,) it is sometimes so strong, that it covers his meaning with an impenetrable shield, from behind which, this literary Ajax fancies that he deals most murderous knocks. Can you guess what he means by 'moral testimony being

accepted to confirm the question of liability, or nonliability?' Confirming a question, I should say, means, bothering an already doubtful point so effectually as to render it doubly questionable. This you will see hereafter is exactly what he intended.

The Board of Nonliability, which Mr. F., with his usual accuracy, says was composed of Drs. Chervin, Louis, Trousseau, Dr. Barry, and myself, besides some half dozen Spaniards,' counted amongst its members, in addition to the above, Dr. Broadfoot, principal medical officer, Mr. Dow, acting deputy inspector of hospitals, Mr. Dix, staff surgeon, and Mr. Thurston, civil practitioner.

Mr. Fraser proposed that every indisposition, during an epidemic, should be taken as a case of the prevailing disease, and that '*moral evidence*' should be considered sufficient to decide upon the reality of any alleged case of double attack. These propositions were supported by Mr. Chervin, who had a long list of cases drawn up, on this plan. The Spanish physicians endeavoured to explain, *moral evidence*, to each other, by translating it into the word, *tradicion*. M. Louis, the president, though a very clear-headed man, could scarcely comprehend it, as applied to pathology. Mr. F., for the benefit of his British friends, illustrated the matter, something in this way: John comes before the Board, and states, or Mr. F. states for him, that his brother, James, who is supposed to be in South America, had been indisposed with headach, in Gibraltar, in October, 1828, and that their mother, who is dead, had declared that both her sons had been also sick, in the Autumn of 1813. Here is a case of second attack. Upon this sort of evidence being refused, not by *vivâ voce* vote, but by ballot, Messrs. Chervin and Fraser became *dissentient;* the other *eleven members* signed the report. What is the College of Physicians about? Why does it not influence the Government to print this report, to which the high character of M. Louis, as a pathologist, and the importance of the question itself, give a value which few professional documents possess?

10. I am now quite sick of Mr. Fraser's endless postulates. 'No hospital servant was taken ill at all for about one month after the commencement of the epidemic, *though in the closest attendance upon the sick.*' This is the very reason why they had not been attacked, previously to the introduction of John Holdroyd, of the 12th regiment, amongst them, on the 2d September. But, as one swallow makes no Summer, let us say the epidemic commenced amongst the troops on the 4th September, which is one day before Mr. Fraser and his colleagues knew that any thing extraordinary had occurred to disturb the public health. They had not yet seen the cordon, nor received the printed bann issued, at two o'clock on the morning of the 5th September, by the Spanish physicians just returned to Algesiras, from Gibraltar. In this circular, they repeat to their British confrères of that garrison, the hints which had already been given to them, in vain, by the old women of the rock, viz. that they had the *vomito negro* amongst them.

I have now before me official returns signed by the surgeons of corps, proving that no less than fifty-nine hospital orderlies were seized with the epidemic between the 5th September and the 10th October; viz.

Royal Ordnance	12
12th regiment	7
23d regiment	3
42d regiment	9
43d Light Infantry	13
73d regiment*	1
94th regiment	14
	59

When we have learnt, in a manner that precludes all possibility of doubt, that these fifty-nine seizures far exceed the whole of the attacked, during the period mentioned, amidst a civil population, of more than two thousand, inhabiting the south district, where the military hospitals were all placed, and where the first civil case occurred, on the 5th September, in the person of Acres, the brother of Holdroyd's reputed wife;†

* This regiment had its hospital on Windmill hill.—Dr. Barry begs it may be stated, that from a memorandum which he has since found amongst his Gibraltar papers, he has reason to believe, that the hospital of the 73d Regiment was not established on Windmill Hill, until after the period alluded to in the note.

† This young man, a day labourer, lodged with his sister and her pretended husband, in district No. 24.

that there were only 164 soldier-orderlies employed about the military sick, from the beginning to the end of the epidemic, and perhaps not half that number at any given time; how shall we account for this immense disproportion of attacks between the civil and military, in the first month, without leaning a *leetle* to contagion? I forgot to say, that not one word of these *postulates*, about the military orderlies, belongs to Mr. F: the whole has been put into his *cat's paw*, to pluck my explanation out of the fire: you will allow, I think, that he has burnt his fingers.

I have some hopes of bringing *you* round to the true faith; but as to your friend, I despair of bringing him even to reason. He has plunged into the arena, or rather has been let loose into it, with such blind and reckless fury, that there is no managing him. He puts one in mind of a fierce Andalusian bull, just rushing into light from his narrow stall, butting even at his own shadow. 'Cornu qui jam petit, et pedibus qui spargit arenam.'

11. Thank my stars! I am now arrived near the conclusion: I have reached Mr. F.'s very becoming remarks on the treatment of the disease, and the comparative success of the different medical people then in the garrison. But the idea of bulls having crossed my imagination, I cannot resist the opportunity of noticing one of the many pasquinades, to which the epidemic gave rise, and which were privately circulated in Gibraltar, during my residence there. It was in the Spanish language, and, in my opinion afforded evidence that all the wit of Spain was not buried with Cervantes. This pasquinade was in the shape of a handbill, announcing a grand bull-fight in the '*Placa de Toros* of Gibraltar, by permission of His Excellency the Governor, &c.' It set forth that several first-rate bulls, of the true *black breed* called 'la Epidemia,' would be killed by the most celebrated *matadors*.* The cattle were said to have been brought in by the well-known herdsmen.—The medical men of the garrison were designated as the bull-fighters, each having a *nom de guerre*, or Spanish *sobriquet*, indicative of some prominent peculiarity of character, or conduct. Some of these were highly amusing, and did honour to the native wit of the remote Calpe. I cannot now recollect who appeared, in collossal characters, as *first*, and *second matadors*, *first*, and *second spadas*,† *picadors*, *banderillas*, &c. but, I dare say, some of Mr. F.'s friends, who understand Spanish, have shewn him this little *jeu d' esprit*, and explained its allusions.

Now, as to my humble share in this exhibition. I arrived in the bay of Gibraltar on the 8th November, landed on the 10th, observed the general localities of the place, saw and conversed with most of the civil practitioners, made myself acquainted with the different modes of practice, civil as well as military, and their results; on the 14th, I addressed a letter to the principal medical officer, of which the following is an extract.

'Let me entreat you to press upon His Excellency, when you see him this day, the crying necessity of adopting without the loss of a single hour, such measures as will prevent any more sick from being sent to the naval hospital. The accumulation of infectious* disease there, has been, in my mind, the leading cause of the great excess of the proportion of military over civil deaths. You can execute no plan in so short a time, that will so effectually, and so rapidly check the frightful mortality of the troops, and at the same time so largely increase the confidence of the garrison in yourself. Give me the authority and the thing shall be done this day.

(signed) 'D. BARRY, M. D.
Physician to the Forces.'

'To Dr. Broadfoot, P. M. O.'

* I use the word infectious, as synonomous with contagious.

His Excellency granted the desired authority without a moment's delay, and that very evening, the 12th, 42, and 43d regiments began to send their fresh cases to some sheds close to the neutral ground, on which they were then encamped. From that day to the close of the epidemic, not a man was sent by any of these corps to the naval hospital. The sheds-hospital was placed under my immediate superintendance.

Finding himself ill, about the beginning of September, he went to his mother's in the south, who, with a Portuguese family, occupied a cottage close to, or under the bridge of the naval hospital. Here he remained concealed for two or three days, but was discovered on the 5th, and sent to the civil hospital. The whole of the Portuguese family were successively taken ill, some days after. These were the first civil cases in the south. (Vide the documents of the Anglo-French commission, and of the British commission.)

* *Matador:* he who despatches the bull, with a sword, after the animal has been sufficiently tortured.

† *Spada*, or swordsman; *Picador*, lanceman; *Banderilla*, tormentor, or flag-bearer.

The annexed is a brief statement of the admissions, recoveries, and deaths of this little establishment, together with a general outline of the treatment pursued, from its formation on the 14th November, to the 14th December following, taken from official returns, now in my possession, drawn up at the time, and signed by the medical officers in charge of the respective corps.

	Admitted.	Convalescent.	Died.
12th regiment	22	18	4
42d regiment	11	8	1
43d Light Infantry	23	17	4
Sappers	2	2	0
Totals	58	45	9

At the close of the returns, four were not yet considered convalescent. Seven only are returned, whose convalescence was delayed beyond the seventh day from the attack.

Of the nine deaths, there are only two so late as the sixth day of the disease.

Of the fifty-eight admitted during the month, eleven had mercury administered to them, either before their admission, or after, and without my approbation. Of these eleven, five died. Twenty-eight were bled from the arm, and two from the temporal artery; in no case to more than sixteen ounces. Of the thirty thus treated, three died: in one of these three there was profuse hemorrhage, from the temporal artery in the night. This practice may not have been quite so vigorous as that of Mr. F. and his supporters; but I have the satisfaction of reflecting, that the loss of life fell very far short of fifty-three and a half per cent. upon the whole of the sick admitted.

12. With regard to the knowledge of the epidemic, be it great or small, which I may have acquired at Gibraltar, those who knew me there will, I believe, allow, that no man worked harder to make himself acquainted with its characters and its history than I did, during a residence of fourteen months. The documents of the three commissions, of which I had the honour of being a member, will, I trust, bear me out in this assertion But it is evident that Mr. F. and those who have furnished him with the dignified observations (for they are not his own), which he makes in this portion of his paper, are determined to establish, *per fas, aut nefas*, a monopoly for themselves in this disease, more particularly in its anatomical characters. I shall not deny that their post-mortem facilities were most abundant; much more so than those of their colleagues. So jealous, indeed, are they on this latter head, that they will not allow me the melancholy honour of having been in at more than 'eight or ten deaths.' But even this is more than I can claim, having declined to participate in the treatment of two of the fatal cases. Pray remind these gentlemen, in your usual classic manner, that the pompous but empty Mussulman, who has plunged his ruthless mattock oftenest, and deepest, into the debris of the Parthenon, in the destruction of which he has anticipated the scythe of time, is not to be considered on that account the only judge of what had been its architectural and sculptured ornaments; that he who daily delves in the quarry, or the mine, is not always the most enlighted geologist. As to myself, I was placed, on my arrival, as you have seen, in charge of the sick of three, out of the seven regiments, of which the garrison consisted. I witnessed autopsies, at the civil hospital, with Dr. Pym and others; at the military hospital, with my colleagues of the Anglo-French commission. At my own hospital I missed none, and all the fatal cases were opened there. I took notes on the spot, of the living and the dead. I examined registers of dissections, where they had been kept. During the last eight months of my residence on the rock, not a single fatal case occurred, either in the civil, or military hospitals, which I did not see examined after death, and of which I did not take notes, at the time. But why descend to talk of these matters? A few cases, diligently observed, and carefully noted at the moment, are worth a cartload of confused recollections, however mysteriously puffed off as the fruits of exclusive research. So much for your friend's defiance of 'contradiction' to his borrowed slander.

13. Knowing that *you* are fond of postulates and other '*sesquipidalia*,' I shall give you two or three on the subject of mercury, as a naval and military medicine.

1st. It should never be given, in either service, when the disease can be cured without it, because it renders the constitution once seriously affected by it, much less capable than it had been of resisting the influence of cold and wet for years after, and therefore often leads to the invaliding, if not the death, of many an able seaman and good soldier.

2d. There was not even one case, in the whole of the late epidemic at Gibraltar, which recovered under the use of mercury, that would not have recovered more quickly, more comfortably to the patient, and much more profitably to the service, without a single grain of it.

3d. Almost the only cases of tedious convalescence we had at Gibraltar, and I saw the whole of them with Dr. Pym, were men who had used mercury in large quantities. The fever itself hardly ever, I might say never, left organic disease behind it.

Thanks to our director general, he has done much to discourage the unnecessary exhibition of this drug, in those diseases to which young soldiers are particularly liable.

14. The motives which induced me, in consultation with my colleagues of the sheds hospital, first to limit the use of this mineral to its mildest combinations with a vegetable aperient, and afterwards to suspend its administration in toto, were of the most irresistible kind. Such motives had, perhaps, never occurred before, and probably never will again; but as your forlorn hope is *hors de combat*, I shall reserve my fire for the main body.

Should you think that any of your friend's assertions still rest upon even the semblance of defensible ground, be kind enough to let me know. You shall have facts and documents until you cry 'Hold, enough!' In the mean time, presuming that *your engine must halt to take in a fresh supply of fuel*,

I remain, sir, your obedient servant,

D. BARRY, M. D.

Physician to the Forces.

P. S. By way of a set-off against your friend's poetical flourish about 'the thousand sick of some fever on board the Havannah ship, who all died without proving any thing,' (which I forgot to notice sooner,) you shall have my official opinion on the subjects of local origin and importation of the Gibraltar fever, as it stands attached to the proceedings of the Board of Commissioners.

DR. BARRY.

'I am of opinion that the fever which prevailed in an epidemic form in this town and territory, last autumn, was not of local origin, but that it was imported. I have been induced to form the above opinion from the following reasons:

'1st. Because I consider that it has been satisfactorily proved to the Board that this fever is identical with the yellow fever, or black-vomit fever of the West Indies, with the epidemic fever which, at different periods within the last thirty years, has committed such ravages in this garrison, and in other parts of the south of Spain: that it is essentially different from every fever indigenous in any part of Europe, in its mode of attack, its symptoms, its duration, its anatomical characters, and, above all, in its affecting the same individual but once during life.

'2dly. Because I conceive that, after the most minute examination of all the medical and other evidence which could be procured, it has not been satisfactorily shown to the Board that even one case of fever has occurred here, within the thirteen years immediately preceding 1823, identical with the late epidemic fever, excepting four which occurred in the year 1817, in the persons of lightermen and Jews, who had been in the habit of having intercourse with West India ships; although it is presumable that, during that period, all the physical causes inherent in this territory, and capable of generating disease, had been in full action, and although the population was more dense, and the houses less commodious during these years than in 1828, as stated to the Board by the best informed and most respectable evidences.

'3dly. Because I conceive that there is no evidence before the Board to show that there is any source of malaria within this territory, and because I conceive that it has been fully proved to the Board that the effluvia arising from drains, even when they have been most offensive, had no share in producing the late epidemic.

'I am of opinion that the late epidemic disease was imported, and afterwards propagated here.

'1st. Because I conceive that there is ample evidence before the Board to prove that this disease is capable of being propagated either by direct communication, or by means of the clothes of persons who had been affected by it.

2dly. Because I consider it proved to the Board, by the clearest evidence, oral as well as documentary, that several of the ships which arrived here last summer and autumn, from yellow-fever countries, had suffered much from sickness and deaths on their passage; amongst others, the Swedish ship Dygden: that four or five of this ship's crew died in the

Havannah, and two on her passage here, of yellow fever; nine having been sick during the passage; that the mate of the ship was ill about the 24th July, whilst in quarantine, and was not reported to the inspector of health; that, on the 7th August, the day after the ship had been admitted to pratique, one of her crew was received into the civil hospital here, as a case of 'intermittent fever from the Havannah;' that one of the men shipped on board this vessel here, to assist in navigating her to Cadiz, was taken ill a few days after having gone on board of her, and continued so for five or six days; that mattresses and other effects were thrown overboard from this ship whilst she lay in quarantine here and in Cadiz; that the clothes of the men that died on board this ship were sold to sailors who landed from her, about the 6th August last; that the sister of a sailor who landed from this ship, and who had had the black vomit fever in the Havannah, immediately before he embarked from that place for Gibraltar, received a bag of clothes belonging to that sailor, and fell sick on the 20th August; that the health guard, Francis Teste, who was placed on board this ship on the 27th July, declared to several persons that she brought the yellow fever to this garrison; that the sister of this health guard, who, on the 11th August, assisted to wash his clothes which he brought from on board this ship, fell sick, according to his own declaration to the Board, on the 21st August; that the very first persons who were attacked by the late epidemic were connexions of sailors and health guards, young persons who had been recently on board-ship, and washerwomen.

'3dly. Because, at the moment that the sailors of the Dygden landed here with the clothes of the men who had died on board her of yellow fever, all the collateral circumstances favorable to the propagation of disease were present, viz. the sultry calm of a southern autumn; the peculiarly sheltered and unagitated state of the atmosphere of Gibraltar; the steady, high range of the thermometer; the abundance of subjects fitted, from their age and freshness, to receive the contagion, and from their never having undergone the protecting influence of a former attack of this singular and dreadful malady; and, lastly, because the ship Dygden was admitted to pratique on the 6th August, and because the very first case of the epidemic occurred on the 12th of the same month.

(Signed) 'D. BARRY, M. D.

'*Gibraltar, April* 30, 1829.' Secretary to the Board.

Of the stormy discussion which, we have reason to know, is approaching, we shall take occasional analytical notice, without identifying ourselves with either party. Meanwhile, we have no hesitation in saying that Dr. Barry's observation and official documents demand a full and deliberate reply from Mr. Fraser, and the gentleman on his side of the question. Dr. Barry's best friends will probably regret the *jocular* manner in which he has treated a subject, that is little adapted to such a style of writing.—*Ed.*

VIII.

A TREATISE ON THE VENEREAL DISEASES OF THE EYE. By *William Lawrence*, F.R.S. &c. Octavo, pp. 337. John Wilson, London, 1830.

IT is not many years since the treatment of disease of the eye was monopolized by one class of men to the exclusion of the general mass of the profession. It cannot be denied that the breaking up of this monopoly has proved of advantage to science, to surgery, and to the public. That which is confined to the few is apt to be made a mere vehicle of gain, an engine of private interest, an instrument of quackery. The oculists and aurists have done little for the profession, but much for themselves. They have amassed wealth, but have they contributed to enlighten their brethren on what we must term the mysteries of their craft? The general voice pro-

nounces that they have not. All reflecting men beheld with pleasure, the spectacle of ophthalmic surgery emerging from the leaden toils of those who were always inclined to secresy and concealment, too often to undisguised charlatanerie. They prophesied that the result would be advantageous, and the prophesy has been more than amply realized. The stride in the knowledge of the diseases of the organ of vision, which has been made on the Continent and in this country, is gratifying to the philosophic lover of mankind, as well as to the practical surgeon. Destructive maladies not recognized before are now understood by every tyro, and complaints which carried on their pernicious ravages without let or hindrance from the art of medicine, are now brought under its potent control. This is no caricature, no fancy of the closet, no dream of the enthusiast. It is the simple statement of a plain fact, the proposition which is proved by daily observation. Mr. John Pearson, whose experience in venereal diseases was greater than that of any individual before or since, has declared that he never saw an instance of gonorrhœal ophthalmia, and doubted the existence of syphilitic iritis. Yet the latter are commonly met with now in any of the London Hospitals, and the former is not unfrequently witnessed wherever ophthalmic patients are collected. The conclusion is inevitable, that Mr. Pearson could not recognize these diseases when he saw them, or that patients with affections of the eye forsook the regular practitioners to throng to the professed oculists. Probably the truth will be found between the two suppositions.

We need scarcely enumerate the able men who have made the diseases of the organ of sight familiar to the reading portion of the profession. The means are well known, and the end is obvious. Ophthalmic institutions have started into vigorous existence in the metropolis, and ramifications of these parent trunks have disseminated themselves throughout the country. Mr. Mackenzie has acquired deserved reputation at Glasgow: there is an eye infirmary of no mean celebrity at Birmingham. But why should we multiply examples of what all can see, and all must applaud. We have already declared, and we here repeat it, that the results cannot fail to be beneficial to science, to surgery, and to mankind.

We hail with pleasure the work whose title stands at the head of this article. As a man of science, Mr. Lawrence cannot fail to be respected, as a man of talent, to be admired. When he dedicates his great and acknowledged acquirements to the advancement of the profession, to which he is an ornament, we are much mistaken if he will not obtain the cordial approbation of his brethren.

The work, as its name imports, treats of the Venereal Diseases of the Eye, that is, of its gonorrhœal and syphilitic affections. The mild and acute gonorrhœal opthalmia, the syphilitic iritis, and the syphilitic ulceration of the palpebræ, are the diseases which this arrangement comprises. It must be allowed that this is an interesting field, if not a very novel one—the crop may be productive, though the grain is well known. If many of Mr. Lawrence's productions were rather doctrinal than strictly practical, rather teeming with keen remark and shrewd hypothesis than plain and sober facts, such is not the case in the present instance. There are no less than 24 cases of gonorrhœal ophthalmia—29 of sypilitic iritis—and five of syphilitic ulceration of the eyelids, all more or less circumstantially and

diurnally detailed. The work may in fact be looked upon as a long-winded hospital report, which has grown fat and bulky from lying by. In the present golden age of reporting, we suppose that this will not be considered an objection to the volume.

In his advertisement or preface Mr. Lawrence declares that the account of the nature, symptoms, and treatment of the diseases which form the subject of the work, has been drawn up entirely from his own experience. Like all men of great erudition, Mr. L. is diffident of his own acquirements; he is too modest for this age of bronze. When we return to his page we find reference after reference to authors, English, French, and German, and he seems at least as anxious to tell us what every other person thinks, as what he himself believes. Now such is our selfishness that we had rather Mr. Lawrence had kept his word, and given us his own experience, without this alloy of foreign metal. It may indeed increase the ductility of his matériel, but it sullies its sterling worth in the assay. We are paying no fulsome compliment, and we really intend no sneer, when we affirm that Mr. Lawrence could amply afford to tell us what he knew, and to tell us that alone. We have more than enough now-a-days of the dictionary-style of writing.

The first chapter consists of an introductory and historical view of the subject, which need not detain us. The venereal diseases of the eye are naturally divided, as we said before, into the gonorrhœal and the syphilitic, and the second chapter opens with the former.

I. Acute Gonorrhœal Inflammation of the Conjunctiva.

Three distinct forms of ophthalmic inflammation occur in conjunction with, or dependence on gonorrhœa; namely, 1st, acute inflammation of the conjunctiva; 2d, mild inflammation of that membrane; and, 3d, inflammation of the sclerotic coat, sometimes extending to the iris.

And first then of the acute inflammation of the conjunctiva; or gonorrhœa ophthalmia; or blepharophthalmia and ophthalmia gonorrhoica vera of Beer.

"The name of this affection sufficiently indicates its nature. It is a violent inflammation of the mucous membrane of the eye-ball and lids, attended with a profuse discharge of fluid, closely resembling in all its sensible characters that, which issues from the inflamed urethra in gonorrhœa, and occurring in some kind of connexion with that complaint. It is the most violent and rapidly destructive inflammation, to which the eye is subject; and, fortunately, it is one of the most rare. It sometimes destroys the eye within a very short time; and the organ is often irreparably injured before the patient seeks for surgical relief, especially when the affection occurs in the lower classes.

Purulent ophthalmia, in its various forms, commences in, and is at first confined to the mucous membrane of the eye. It soon extends to the cornea, which it either disorganizes, or changes in structure so considerably, as frequently to destroy or seriously injure sight. The whole texture of the inflamed conjunctiva swells; its blood-vessels are distended to the highest degree, and the membrane becomes of an intense bright red. The texture of the mucous surface is loosened and softened—it becomes pulpy and granular; in short, very much like the secreting surface of some parts of the alimentary canal; and, in this altered state, it pours forth the puriform discharge, which is not produced by suppuration, but is merely the ordinary mucous exhalation, altered in its qualities, and increased in quantity by the inflammation of the membrane. Indeed, purulent ophthalmia does not in general produce suppuration: the changes, which it more commonly causes in the cornea, are sloughing, ulceration, and interstitial deposition ending in opacity." 12.

Symptoms and Progress of the Complaint. This presents all the characters of purulent inflammation of the conjunctiva in their fullest extent. In the first short stage, the inflammation is confined to the conjunctiva, and is attended with soreness and stiffness, the sensation of sand or dirt in the eye, and more or less uneasiness on exposure to light or using the organ. It soon extends to the cornea, with agonizing pain in the globe, orbit, and head, aggravated by exposure to light, and attended with inflammatory fever. When the disease has advanced thus far, we can hardly expect, by any kind of treatment, to avert entirely its destructive consequences. The violent inflammation, which produces the puriform discharge from the surface of the conjunctiva, gives rise to effusion into the cellular texture connecting it to the surrounding parts. Hence the general swelling of the membrane, and especially the chemosis round the cornea, sometimes so considerable as to overlap and nearly hide it. A similar effusion takes place into the cellular texture of the eye-lids, particularly the upper, which sometimes hangs over and completely covers the lower. This swelling is sometimes simply œdematous; at others, it is firmer, and the skin, particularly of the upper lid, is of a bright red. This denotes more active inflammation and greater danger to the organ. The chemosis and palpebral swelling make it often difficult, sometimes impossible to obtain a clear view of the cornea, and we should not persist in such efforts at the risk of aggravating the inflammation. In the progress of the case the œdema of the lids declines, and then one or both may become everted, the convex edge of the tarsal cartilage being pushed forwards by the swollen conjunctiva.

The chemosis and tumefaction of the eye-lids are obviously analogous to the effusion in the neighbourhood of any active inflammation. Yet such modern writers as Beer and Richter profess the old opinion, that they depend on the effusion of true gonorrhœal matter. Richter gravely affirms that this flows out on making incisions into the chemosed conjunctiva.

The inflamed membrane at first exhales a small quantity of thin whitish mucus; as the inflammation proceeds, the discharge becomes thicker, yellow, and abundant; its quantity and yellowness being proportionate to the inflammation. When the latter is at its height, the discharge closely resembles, in appearance and its stain on linen, the gonorrhœal discharge from the urethra.

Although the pain in the eye and head is sometimes very severe, the globe feeling as if it would burst, yet there are some instances in which there is little or no suffering. As might readily be anticipated, the symptoms of acute gonorrhœal ophthalmia are not equally violent throughout its course. The affection may be divided into three stages. In the first, there is vascular distention and swelling of the membrane, with swelling of the lids: in this there is some pain in the organ;—in the second, there is puriform discharge, with increased uneasiness;—in the third, there is extension of the inflammation to the cornea, with great aggravation of suffering. The duration of each stage varies with the condition of the individual, and perhaps still more according to the nature of the treatment. The variety is greatest in the third stage, the first two passing off very rapidly. In Case V. the second stage began in twenty-four hours from the first perception of uneasiness; in thirty-six hours the eye could not be seen, and the disease had clearly extended to the cornea. In Case I. the first stage occupied

about thirty-six hours, the second between three and four days. In Case VIII. the affection began on the 1st of November, and on the 6th the cornea was found to have sloughed. These facts exemplify the frightful rapidity of the disease.

Effects of the Inflammation. The immediate effects upon the cornea are sloughing, suppuration, ulceration, and interstitial deposition. The more remote consequences are escape of the humours and collapse of the globe, obliteration of the anterior chamber and flattening of the front of the eye, staphyloma, prolapsus iridis, obliteration of the pupil, corneal opacity, and anterior adhesion of the iris. The eye is sometimes said to *burst*. A paroxysm of excruciating pain is suddenly terminated by a sensation of something giving way, a little fluid runs down the cheek, and great relief is experienced. The anterior chamber has been penetrated in consequence of the changes of the cornea.

The cornea becomes dull and hazy before it sloughs, indeed, before any of the preceding changes have occurred. When it has sloughed, it is converted into a dirty yellowish or brownish opapue substance, which at first looks like a portion of wetted leather, but it soon separated from the living parts, when it has a loose, soft, and ragged appearance. As this separation exposes the transparent lens and capsule, the patient sometimes recovers, for a short period, tolerably good vision. After the slough is detached, the chambers of the aqueous humour may be exposed by ulceration ; the humours will then escape, the emptied coats will collapse, and the globe remains permanently shrunk in the socket. More commonly the entire thickness of the cornea does not separate, and the anterior chamber is not exposed. The interior layer of the cornea, or the membrane of the aqueous humour is left, and is soon pushed forwards by the iris, which forms an irregular, brownish, and dirty-looking protuberance in the front of the eye. As the inflammation declines, this protuberance recedes until it disappears altogether, the front of the eye remaining flattened, and being formed by the iris, covered by a thin, smooth, and more or less opaque pellicle, through which the fibres of the iris may be distinctly seen, giving it a somewhat streaked appearance. Sometimes the iris is permanently protruded, and forms a dark, more or less smooth protuberance, partially subdivided on the surface, and constituting *staphyloma racemosum*.

The separation of the slough, when partial, leaves an ulcerated surface, which is soon raised into a vesicular protuberance, consisting of the membrane of the aqueous humour, with the iris which has become adherent during the previous inflammation of the cornea. This forms *prolapsus iridis*. It shrinks as the inflammation declines, and the regular figure of the cornea is restored ; but the iris remains adherent, and is covered only by a thin pellicle, which is partially opaque, while the boundary of the adhesion presents a deeper opacity in the cicatrix of the corneal laminæ. If as much as one-half or one-third of the cornea should have perished, a permanent tumour is sometimes formed in the front of the eye, consisting externally of the opaque cornea, and internally of the adherent iris ; its cavity, which is an extension of the anterior chamber, being filled with the aqueous humour. This is termed partial staphyloma, and differs from prolapsus iridis, or complete staphyloma, only in size. Mr. Lawrence has seen this occur in both eyes of the same individual, with but little injury to sight, as the protrusion of the iris hardly interfered with the pupil.

Suppuration of the cornea may be general or partial: it is usually the former. The cornea first becomes white, and then assumes a yellow colour. The effused substance is not a fluid, nor collected into a cavity; it is a thick viscid matter deposited in the texture of the cornea. Ulceration takes place, and exposes an opaque yellow substance, which looks like ordinary matter but cannot be wiped off. The ulcerative process extends until this is removed. If the whole cornea is destroyed the humours may escape, and the globe will shrink. Or the humours may remain, and the tumid conjunctiva scleroticæ contract from the circumference towards the centre of the space left vacant by the cornea, until it completely fills it; the eye then appears like a red fleshy mass, in which even the original situation of the cornea cannot be distinguished. The ulceration of the suppurated cornea may penetrate the anterior chamber at different parts, at each of which the iris may protrude, the front of the organ remaining ultimately flattened.

When ulceration takes place without previous suppuration, it generally attacks the margin of the cornea, and extends rapidly through the laminæ, forming a deep trench, seldom occupying less than one-third, often one-half or two-thirds, of the circumference, and sometimes extending round the whole circle. In the latter case the portion insulated by the ulcerative process sloughs. On the sides of this ulcerated trench, the laminæ of the cornea may be seen very distinctly. Beer compares them to the leaves of a book, which turn up after it has been much read. If the ulceration occupy no more than two-thirds of the margin, the vascular supply of the cornea will still be carried on, and the mischief may be repaired. As the margin of the cornea is covered by the swollen conjunctiva, we do not see the ulcers until the chemosis begins to subside. When the ulcer has gone through the corneal laminæ, the membrane of the aqueous humour may rise as a transparent vesicle in the cavity; or it may be pushed forwards by a protruding portion of the iris. The ulcerative process may penetrate the anterior chamber, when the iris will either fall against the opening, or be pushed into it and block it up. If the ulcer, however produced, should be spreading, the inflammation remaining unchecked, its surface is whitish and ragged, or flocculent; or of a dirty yellowish cast, with surrounding haziness. When the inflammation subsides, it becomes transparent. The commencement of the restorative process is marked by the surface of the excavation assuming a light greyish tint, with a jelly-like appearance. A soft semi-opaque substance slowly fills up the breach, when the surface becomes smooth, and the regular figure of the cornea is restored. No secretion of pus is observed, either during the stage of ulceration or that of reparation. The latter process is slow, several days often elapsing without any sensible change in the size or appearance of the ulcer. The same contraction takes place here, as after the cicatrization of other ulcers, so that the size of the opaque cicatrix is less than that of the previous corneal ulcer; one of considerable size leaving a mark that is scarcely perceived, whilst, although the ulceration may have extended over the edge of the pupil, the cicatrix may leave that aperture quite unobstructed.

The existence of ulceration makes no difference in the pain during the active period of the disease: when the inflammation is stopped, a large ulcer may give little pain. When interstitial deposition takes place in the corneal lamellæ, the opacity is of the dense kind called *leucoma* or *albugo*. It

is usually accompanied by anterior adhesion of the iris, or *synechia anterior.* Contraction or obliteration of the pupil may occur, in consequence of the protrusion of the iris in partial staphyloma, or at the smaller apertures produced by ulceration; or of its adhesion to a leucomatous portion of the cornea. When the cornea has been weakened by excessive sloughing or ulceration, the iris having previously become adherent to it during the active period of the inflammation, the conditions necessary to the formation of total staphyloma exist; which accordingly is one of the ultimate consequences of gonorrhœal ophthalmia.

Diagnosis. The peculiar nature of gonorrhœal ophthalmia is indicated only by existing or preceding gonorrhœa. In general, it attacks only one eye, while purulent ophthalmia affects both. Ordinary purulent ophthalmia may, however be confined to one eye, whilst the gonorrhœal form often attacks the second eye after a short interval. One eye only was affected in nine out of fourteen cases which Mr. L. has recorded. In common purulent ophthalmia, the mucous lining of the palpebræ is first affected, and the disease extends to the mucous covering of the globe. In Case V, where the complaint was seen at its outset, it began at once in the conjunctiva oculi. It is further characterized by the violence of its symptoms, the rapidity of its progress, and the short time in which it produces destructive effects. The few scattered cases of purulent ophthalmia met with in civil life are much less alarming in these respects.

Prognosis. In a large proportion of these cases, the sight is either lost or seriously injured. Out of fourteen cases, loss of vision took place in nine from sloughing, suppuration, or opacity of the cornea. In two of these one eye was lost and the other recovered. Sight was restored in the other five, with partial opacity of the cornea, and anterior adhesion of the iris in three of the number. Our assistance is seldom obtained in the early stage, and even if it is, success is far from invariable. If the cornea should possess its natural clearness, the eye may be saved. If it is hazy and dull, and particularly if it has assumed a white nebulous appearance, more or less serious consequences will inevitably follow. Great swelling of the conjunctiva, especially great chemosis, profuse yellow discharge, and bright redness of the swollen upper eyelid, are unfavourable circumstances. The changes of the cornea do not always destroy sight, which may be restored after its partial sloughing, and may not be injured by extensive ulceration. All cases are not equally severe. When both eyes are attacked in succession, the disease is less severe in the second, which, therefore, is usually saved. Sometimes the inflammation is equally violent and destructive in both. Mr. Lawrence has seen more than one melancholy instance of total blindness.

Causes. "In investigating this part of the subject, we have to inquire what is the nature of the connexion between this inflammation of the eye and gonorrhœa? whether the former can be produced by the application of gonorrhœal matter to the organ? If so, whether an individual can infect himself? whether the application of matter from another source be necessary? or whether the infection may occur in both ways? Whether, on the other hand, gonorrhœal ophthalmia may be an example of that peculiar transference of diseased action, which is called metastasis? To some it may appear necessary to examine a previous question; viz. whether there is any connexion at all between the inflammation of the urethra and that of the eye? For Mr. PEARSON, in a letter which I have already quoted, directly denies the existence of such a connexion, on the ground that, in many thousand

cases of gonorrhœa, he had not seen one instance of inflammation of the eye that could be ascribed to the gonorrhœa.

From this statement we can merely infer that Mr. Pearson had not seen gonorrhœal ophthalmia, which is very strange, when we consider, as he informs us, that many thousand cases of gonorrhœa had fallen under his notice. I may oppose to his negative testimony the positive experience of many competent observers, and the evidence of the facts detailed in this work.

Whether this dangerous ophthalmia can be produced by the application of gonorrhœal matter to the organ, is a more doubtful point, which the nature of the subject prevents us from settling in the only satisfactory way, that is, by direct experiment.

It is stated incidentally by Beer,* and in the same kind of way by Scarpa, that, if gonorrhœal matter be applied to the eye, it excites only a slight degree of inflammation. These statements are not accompanied by any narrative of cases, or other detailed illustrations, so that we do not know on what kind of proof the assertions rest, nor how the application of the morbid secretion to the eye was ascertained." 29.

Infectious matter does not produce disease in the same individual, and analogy would lead us to imagine that the law held good with gonorrhœa. Dr. Vetch took matter from the eyes of persons labouring under acute purulent ophthalmia, and applied it to the urethra of the same individual. No disease was excited. He applied it to the urethra of an other individual, and a very virulent gonorrœa was the consequence. But morbific influences are not in all instances reciprocal, and the converse of Dr. Vetch's experiment might not succeed. Dr. Vetch mentions that a hospital assistant, named Smith, applied gonorrhœal matter to his own eyes with impunity, and no doubt it is often brought in contact with the eye in the lower classes, yet gonorreœal ophthalmia is comparatively rare.

"Although these various considerations would lead us to expect that gonorrhœal discharge would not affect the eyes of the same individual, we meet in practice with cases, from which there is every reason to draw the contrary conclusion. It is a well known popular remedy for sore eyes to wash them with one's own urine; and persons labouring under gonorrhœa are sometimes so thoughtless as to resort to this practice. Experience teaches us that this direct application of infectious matter is capable of producing, not such a slight inflammation as Beer and Scarpa speak of, but acute gonorrhœal ophthalmia in its most destructive form. This is fully proved by Case IV. where both eyes were lost, and Case XIV., in which the vision of one was destroyed. In Case VIII., in which partial sloughing of one cornea occurred, the patient had used to his eyes a towel soiled with gonorrhœal discharge from his own urethra. Mr. Wardrop communicated to me two cases which occurred under his own observation. In one of them that of a young gentleman labouring under gonorrhœa, who had inadvertently touched his eyes when his fingers were contaminated with the discharge, violent puriform ophthalmia occurred, and ended in the suppuration and collapse of both eye-balls. A soldier who had gonorhœa, was advised to bathe his eyes with his own urine, as a remedy for a slight affection of the lids, purulent ophthalmia seized one eye, which suppurated and burst. Astruc† saw a case in which

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* "'We read of gonorrhœal ophthalmia said to have been produced by infection, that is, by gonorrhœal matter of the same or another individual conveyed to the eye by a cloth, or the fingers. I have frequently seen such cases, but they were merely inflammations of the palpebral glands, which yielded to the ordinary means. It is possible, however that the inflammation of the palpebral glands, thus produced by immediate infection, might pass into purulent inflammation of the eyelids and eye in a weakly person of bad constitution.' —*Lehre*, v. i. § 540."

† Vol. i. p. 295.

both eyes became inflamed from this cause; but the affection does not seem to have been very severe. Another instance is detailed by Mr. FOOT;* the ophthalmia, which was of the most acute kind, ended in opacity of the cornea and loss of vision.

Experience clearly proves, what we should have expected a priori, that gonorrhœal ophthalmia may be produced by the application of gonorrhœal matter from another individual. This cannot be a very frequent occurrence for obvious reasons; and I have seen no instance of the kind. Mr. WARDROP has furnished me with two examples. An old lady went into the dressing room of her son, who had gonorrhœa, and washed her face with a towel which he had been recently making use of. Purulent ophthalmia quickly supervened, and destroyed the eye in a few days A washerwoman, who had been employed in cleansing foul linen, was seized in a few hours with puriform ophthalmia, which terminated in the suppuration and collapse of both eyeballs. DELPECH† mentions the instance of a young and healthy woman, who washed her eyes with goulard water and a sponge, which had been used by a young man affected with gonorrhœa. Violent ophthalmia came on, and quickly terminated in loss of the eye. Mr. BACOT‡ distinctly traced the origin of the disease to infection, by means of matter from another individual, in three instances, two of which were washerwomen." 33.

In a great proportion of cases we cannot trace the disease of the eye to the application of infectious matter. The cause is said to be metastasis and the suppression of the urethral discharge. Mr. Lawrence, however, has never seen the discharge cease, and although diminished it still continues. On the other hand, the sudden stoppage of gonorrhœa, when effected by surgical treatment, is not followed by inflammation of the eye. Mr. Lawrence is inclined to refer the occurrence of gonorrhœal ophthalmia to a peculiar state of the constitution, analogous to what is seen in gout and rheumatism. He thinks that this view is borne out by the fact, that the affection is much more common in males than in females. Besides, the morbid influences experienced and exerted by the male urethra are different from those of the vagina.

Treatment. The only chance of saving the eye is afforded by the boldest antiphlogistic treatment, particularly local and general depletion. We must bleed largely from the arm, and take blood by cupping on the temples, or by numerous leeches applied round the part; these measures must be repeated at short intervals until the vascular congestion is relieved and the pain removed. The other items of the antiphlogistic treatment must be added. If depletion has failed in some of his cases, Mr. Lawrence believes that it is not because it is ineffectual, but because it was not carried to a sufficient extent. Mr. Wardrop informed our author that in the only instance in which he had seen the eye preserved, the patient, a young woman, lost 170 ounces of blood in a few days, and her skin had the hue of a wax candle. In the cases recorded by Mr. Lawrence, in which the termination was most favourable, blood was taken very largely.

For the slighter symptoms which may shew themselves after the inflammation has been subdued, local bleeding will suffice. The bolder depletion is recommended where the inflammation is fully developed, without the cornea being yet affected, or where the condition of the cornea may be

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* Treatise on Lues Venerea: 1820, p. 98 † Chirurgie Clinique; t. 1, p. 318.
‡ Treatise on Syphilis, p. 132.

doubtful; that is, where we may entertain the expectation of saving the organ from all injurious change.

If sloughing or suppuration should have occurred already more moderate depletion is indicated. General sloughing or general suppuration of the cornea is usually attended by diminution of the inflammation and cessation of pain, or at least comparative ease. The loss of blood is not required for the suffering, and cannot preserve the vision. After partial sloughing, the inflammation may still continue unabated, and active depletion may still be required both to limit the extent of the mischief, and to favour the process of separation and restoration. In one case this treatment was perfectly successful in preserving sight. Blisters are only to be looked on as an auxiliary measure, to be resorted to after other antiphlogistic means. They should be applied to the back of the neck, and the discharge should be kept up by the savine cerate. Some recommend hot applications, others cold; neither are possessed of any great power. Cold are most applicable to the early stage, but the patient's feelings must be our guide. A saturnine lotion made with rose-water or poppy-fomentation, is useful. The eye-lids and cheek should be frequently cleaned, and the discharge prevented from encrusting on the lids; these may sometimes be smeared with some mild unctuous substance.

The inflammation may be checked by these means, but its effects are not immediately removed. The conjunctiva grows paler and somewhat flabby, and the purulent discharge is still abundant. The patient also is probably pale and weak. It is now commonly considered necessary to give tonics internally, and employ astringents locally. If the inflammation has been speedily and completely subdued, mild aperients alone will effect the cure, with the addition perhaps of a weak sulphate of zinc lotion.

Occasionally, but very rarely, sloughing of the cornea is attended with a change of symptoms, and general depression requiring cordials and tonics. Whilst this occurs, the ulcer on the cornea may spread with a whitish or dull yellow colour, and an irregular surface and edge. Here bark and a generous diet are necessary. Astringent lotions are also proper, and whenever the inflammation has been subdued, they may safely be employed; although they may not accelerate recovery, they will not, under such circumstances, materially retard it. Sometimes, however, they act as stimuli and induce a relapse. Mr. Lawrence thinks this will be most certainly averted by avoiding all local excitement, and pursuing mild antiphlogistic treatment. The best forms of astringent applications are the solution of alum, gr. ij. to gr. x. to the ounce of water: the solution of the nitrate of silver: and the undiluted liquor plumbi. Means of this kind, and especially the lunar caustic, have been recommended in ulcers of the cornea, particularly when accompanied with protrusion of the iris; in the latter case it has been used in substance. Mr. L. has found recovery take place most speedily when none of these means have been employed.

The use of a strong injection has been recommended in the very commencement of the affection. Mr. Melin proposed it in ordinary inflammation of the conjunctiva, dropping a solution of four grains of the nitrate of silver to the ounce of water into the eyes twice a-day; in a few days, the cure was effected. Mr. Melin has tried this plan very extensively in acute ophthalmia, and has amply proved its efficacy. Dr Ridgway, with whom this practice originated, employed a solution of ten grains to the ounce, and

used it in gonorrhœal as well as conjunctival inflammation. Dr. O'Halloran has advanced the strongest testimony in favour of the astringent plan of treatment in ordinary purulent ophthalmia. He employed the sulphate of copper in substance, or dropped into the eye the ten-grain solution of the nitrate of silver, generally using one or the other once a day. He gave purgatives and applied fomentations, with leeches, if there were symptoms of affection of the internal parts of the organ. He averred that general depletion could be rarely necessary, and that those who used the greatest depletion were the least successful practitioners.

"I have not seen purulent ophthalmia, whether ordinary or gonorrhœal, treated on this plan;* nor am I aware that any case of the latter kind is recorded. Destructive or injurious consequences have so frequently resulted under the usual management of this disease, that I should certainly employ the local astringent if I met with a case favourable for the trial; that is, where the affection had not extended beyond the conjunctiva. Blood-letting might be resorted to at the same time. In most cases, however, our aid is not sought until the cornea has become affected, and it is therefore too late for the astringent plan. The numerous unfavourable results must be principally ascribed to this circumstance; for, when we see the disease at an early period, we arrest its progress, in a large proportion of instances, by the ordinary antiphlogistic treatment. Six such cases are related in this volume; namely, CASES V., VIII., IX., XI., XII., XIII.; and loss of the eye occurred only in one, CASE V." 46.

A circular incision through the swollen conjunctiva, and excision of the chemosis to let out the gonorrhœal matter have been recommended. The latter would be impracticable in most cases.

Mercury has been freely given. In a case communicated to our author by Mr. Macilwain, a high degree of mercurial influence was produced; the eye first affected was lost, the second was saved. Dr. Hennen treated three cases with large bleedings and mercury, affecting the system in forty-eight hours. The event of all was perfectly successful. Depletion was very freely employed in Mr. Macilwain's case, and hence there is some degree of doubt as to which was effective, the bleeding or the mercury, or both. Mr. L. has seen both the ordinary purulent and gonorrhœal ophthalmia proceeding apparently unchecked, under the full mercurial action. Beer and Delpech's experience go to the same conclusion.

The re-production of the urethral discharge supposed to be suppressed, has been a prominent object with some foreign surgeons. Richter even goes so far as to recommend the inoculation of a fresh gonorrhœa, by introducing into the urethra a bougie smeared with gonorrhœal discharge. These are points of practice which will probably receive more smiles than encour-

* "Since the statement in the text was written, I have employed the caustic solution in two cases of conjunctival inflammation, with the best result. One of these (CASE XVI.*) was mild gonorrhœal inflammation. The other was catarrhal inflammation of the membrane affecting both eyes of a gentleman, who had been convalescent from gonorrhœa for a few weeks. As he was a person of robust make and full habit, and the eyes were very red and stiff, I took three pounds of blood from the arm, and purged him freely, with relief of the local symptoms, which were completely removed by a subsequent application of the caustic solution. A slight return of redness, without increased secretion took place three days after, in consequence of imprudent exertion of the organs, and a visit to the theatre; it went off without any further treatment."

agement in this country, and we need not stop to consider them more fully. So much for the chapter on acute gonorrhœal ophthalmia, and its treatment. There is no remarkable novelty in the former, nor any particular precision in the latter. Mr. Lawrence has furnished a catalogue of the modes of practice of others, but with such an extensive experience as he must have had, we looked for more important precepts of his own. His chief reliance appears to be in depletion ; he seems to have tried little else. Now if one thing is rendered more plain than another by modern experience, it is this, that general depletion for local affections may be carried too far. This is especially the case with regard to the eye. It is surprising what stimulation it will bear, and that with decided advantage. The employment of applications of astringent or stimulating properties constitutes one of the most important improvements in the treatment of ophthalmia ; it has saved many an eye, and will save many a life. If many surgeons have looked upon this modern practice with doubt, their caution is not only excusable but commendable. But when its benefits are pointed out again and again by practical men, it becomes their duty and interest to put it to the test of wide experience. We think then that Mr. Lawrence has hardly experimented so much as he might, with the local application of powerful astringents, in gonorrhœal ophthalmia. His remarks, however, are characterised by judgment and discretion.

Twenty-four cases of gonorrhœal ophthalmia are related by Mr. Lawrence. We cannot of course give the whole, for although each is separately a valuable fact or series of facts, yet, when another and another still succeeds, like the shades of Scotland's kings, the monotony becomes somewhat tiresome. We do not quarrel with our able author for detailing these cases so fully ; on the contrary, we are convinced that if the plan were generally adopted by good and practical writers, the results would be beneficial to the progress of our science. We regret that it does not fall within the scope of a periodical publication to notice such cases as fully as might be wished. We shall select some of those which appear to be most apposite and instructive. And first, of acute gonorrhœal ophthalmia.

Case I. *Gonorrhœal Ophthalmia—Sloughing of the Cornea—Staphyloma Racemosum.*

Mr. M. æt. 24, a stout young man, of full habit and florid complexion, contracted gonorrhœa in July, 1827. He was not aware of having applied any gonorrhœal matter to the eye. On the 11th of August, he began to feel the right eye uncomfortable ; it was more so on the 12th ; and his medical attendant recommended the application of brandy and water. The discharge from the urethra had diminished. He went to another practitioner, who bled him on the 12th, 13th, and 14th ; applied 60 leeches to the eye ; and purged him, &c. He appeared to go on well till the 15th, when he had burning heat and violent pain in the eye and over the brow. On the 16th Mr. Lawrence saw him.

"The eye-lids, particularly the upper, are swollen and red, but they can be opened sufficiently to give a view of the eye. The conjunctiva oculi forms a tumid ring, covering the circumference of the cornea : the latter, though free from ulceration, sloughing, or suppuration as far as it can be seen, does not possess its natural brilliancy. There is copious yellow discharge from the eye, which is in great pain, as is the head also. He keeps his

room totally darkened, finding a great aggravation of the local suffering from even the smallest admission of light. The urethra still produces a whitish discharge in small quantity. I gave a very unfavourable prognosis founded on the constitution and previous state of the patient, as well as on the violence and duration of the present attack, the severe pain in the eye and head, and the condition of the cornea; the latter circumstances particularly made me anticipate the occurrence of serious mischief. I ordered that 20 oz. of blood should be taken from the temple by cupping; that active purgatives should be given, and poppy fomentations used to the eye. In the evening, I found that the pain had been relieved by the cupping; the purgatives had not operated; the tongue was foul; there was head-ach and sickness. (Liq. antimon. tart. ℥ss to be taken immediately, and repeated every hour, so as to produce full vomiting. Twenty leeches afterwards. Cold saturnine lotion to the eye.)" 62.

Next morning twenty-five leeches were applied. The lids and conjunctiva were less swelled—the cornea clear, but not so brilliant as natural—the pain in the head and eye less. The purgatives, not having acted, were repeated freely. On the 18th, the eye was better, the conjunctiva of pale red, the cornea clear, as far as it could be seen. *Twenty leeches—lotion—aperients.* On the 19th the pain was still less—the chemosis had partially subsided, shewing deep ulceration of uncertain extent at the margin of the cornea. On the 20th there was some excitement, with a foul tongue. The ulceration had extended round the entire circumference of the cornea, and through its substance, forming a deep trench, on the sides of which, at some points, the corneal laminæ were visible. The part insulated by the circular ulceration was becoming opaque and apparently loosened in texture; it looked like a vesicle or mass of jelly in the front of the eye. *Twelve leeches—saturnine lotion—aperients.* On the 21st there was increased opacity of the insulated cornea, and no pain in the eye. *Alum lotion*, gr. ij. *ad.* ℥j.—*soft rag dipped in it applied externally. Infus. ros. c. acid. sulph. dil.* 6*tis hor. Aperient pill—light nutritious diet.* On the 23d, the cornea had become dull, muddy, and opaque throughout, apparently dead—the iris protruded at one part of the ulcer. Vision was irrecoverably gone, and the gentleman was sent into the country for his health.

When the gentleman returned to town, after an absence of several weeks' a protrusion of the iris en masse formed a considerable irregular dark tumour on the front of the globe (*staphyloma racemosum*,) the basis of which corresponded to the circumference of the cornea, while its surface, though divided into smaller prominences, was smooth from being covered by the membrane of the aqueous humour. The friction of this unnatural protrusion irritated the lids and kept up increased redness in the conjunctiva, with slight discharge. Although the greatest attention had been paid to diet, air, exercise, and the regulation of the bowels, they remained costive; the tongue was foul and the slightest causes would bring on heat, flushing, and pain in the head. The left eye was weak and irritable, and would not bear much employment. In July Mr. Lawrence removed the staphylomatous tumour by passing a cataract knife through its basis. The wound healed and the globe shrunk in the orbit. The left eye was cured by this operation on the right. An artificial eye caused great irritation, and the patient abandoned its use.

CASE II. (IV.) *Acute Gonorrhœal Ophthalmia of both Eyes—Disorganization, (general suppuration?) of the Cornæ, and total Blindness.*

This case is short and cannot be well abridged; it illustrates the dreadful effects of neglected gonorrhœal ophthalmia.

"JAMES OTTWAY, æt. 27, a stout young man, of full habit, and very florid colour, whose occupation had been that of an agricultural labourer, was admitted into St. Bartholomew's Hospital on the 16th of March, 1826, exhibiting, in both eyes, the most destructive effects of acute gonorrhœal inflammation. Five weeks ago, his eyes became sore, and felt as if dust had got into them; the pain increased during the night, which was passed without rest, and the next morning he washed the eyes with his own urine, having been informed by a neighbour that it was a very efficacious remedy. The inflammation grew more and more violent, vision was soon destroyed, and he was obliged to keep his bed.

I found the conjunctiva both of the lids and globe greatly swollen, bright red, raised into irregular prominent masses, and generally granulated. The front of each eye-ball presented a mass of granulations without any appearance of cornea. The tumid conjunctiva had everted both lids of the right eye, and the left superior one, so that the front of the orbits seemed occupied by fleshy masses. There was a copious thin yellow discharge. I could not doubt, on the first view, that it was a case of gonorrhœal ophthalmia, and proceeded to put some questions on the point, when he pretended not to know that there was such a disease as clap. However, on examining the penis, we found discharge from the urethra, warts, and incomplete phymosis; and he acknowledged that he had contracted gonorrhœa five months ago.

As he was of full habit, and had frequent head-ache, he was cupped three times on the back of the neck, had leeches applied to the temples, and was freely and regularly purged, being confined at the same time to milk diet. A solution of alum, gr. iv. to ℥ i., was frequently applied to the diseased conjunctiva; and afterwards the undiluted liquor plumbi subacetatis was dropped into the eyes night and morning. He was discharged on the 24th of April, much improved in health, and completely relieved from the ectropium, the swelling of the lids, and the puriform discharge, but in a state of hopeless blindness." 71.

CASE III. (V.) *Acute Gonorrhœal Ophthalmia—Opacity of the entire Cornea, and adhesion between it and the Upper Eyelid.*

Mr. D. W. æt. 24, a medical student, had laboured under a slight gonorrhœa for about a week, when in syringing the eyes of an infant labouring under purulent ophthalmia, the fluid rebounded into his own right eye. On the third or fourth evening his eye would not bear the bright light of a lecture-room. He had severe pain in the eye during the night, and next morning Mr. Lawrence saw him. The eye-lids were a little red and slightly swollen with serous effusion, while the conjunctiva scleroticæ was raised apparently by the same cause into a pallid red and semi-transparent chemotic ring round the cornea. The blood-vessels of the conjunctiva were little distended. The patient said nothing of the gonorrhœa, and Mr. Lawrence considered it purulent ophthalmia. *Active purge—V. S. to fainting—tartar emetic to keep up vomiting.* In the evening the pain in the eye was worse, and a thin purulent discharge had commenced. On the next morning the palpebral swelling was increased, the eye could not be seen, and there was copious yellow discharge, with severe pain. *V. S. repeated twice—cupping on the nucha and temple—leeches in large number—antiphlogistic regimen.* Each time the blood flowed, Mr. W. felt free from pain, but in spite of all, the inflammation proceeded. The upper lid was enormously swollen, and a profuse discharge of yellow matter ran in streams over the cheek and temple. After a time astringent lotions were used, and the discharge and swelling slowly abated; but when the palpebræ could be opened, the cornea was found to be rather prominent, opaque throughout, and presenting somewhat opaque projections, as if new matter had

been deposited on it. The conjunctiva of the upper lid adhered to this prominent and irregularly-shaped cornea by a thick broad triangular fold, the apex of which was fixed to the cornea. The eye remained exceedingly irritable, and ultimately Mr. L. was obliged to divide the band in question, and remove the protuberant cornea and iris, as in the operation for staphyloma. Conjunctival inflammation immediately followed, with intolerable pain—opium was required—the tunics collapsed—and an artificial eye could be worn.

CASE IV. (IX.) *Acute Gonorrhœal Ophthalmia—Partial Slough of the Cornea and Prolapsus Iridis—Complete Recovery of Sight.*

R. C. æt. 21, an athletic pugilist, accustomed to eat much animal food, and to drink fermented liquors, contracted a gonorrhœa in the early part of September, 1827. In rather more than a fortnight his left eye became inflamed and painful, and probably the discharge was applied to the eyes. On the 20th he was admitted into St. Bartholomew's with acute gonorrhœal inflammation of the eye, the chemosis nearly covering the cornea. *Twelve leeches to the eye—aperients—milk diet.* 21st. Bowels not opened—pulse 96, full and strong—ophthalmia not checked. *Arteriot. temporal. ad* ℥xvj.—*purges.* On the 22d no relief. *V. S. ad syncopen,* (44 *oz.*)—*hirud.* xij. *oculo, calomel and colocynth.* On the 23d and 24th, twenty leeches—clyster on the 25th—bowels opened on the 26th by mag. sulph. The pain was severe, the local inflammation continued, and cupping to 20 oz. was practised on the left temple. On the 27th the chemosis and pain were rather less—pulse still powerful. *V. S. to fainting,* (36 *oz.*)—*blister behind the left ear, dressed with savine—aperient mixture.* On the 28th he felt better; the eye was always relieved by depletion. *V. S. to fainting,* (36 *oz.*) On the 29th the cornea could be seen; it was rather hazy; on its lower margin a small vesicle, a protrusion of the membrane of the aqueous humour at an ulcerated aperture, probably produced by the separation of a slough. *Blister to the temple.* Oct. 1st, still profuse discharge. *Solut. zinc. sulph.* (gr. j. ad. ℥j.) *sæpius injiciend.* On the 2d, the cornea was clear—prolapsus iridis had taken place at the ulcer, which involved only a small portion of the pupillary margin. On the 6th, this, covered by the membrane of the aqueous humour, formed a smooth oblong tumour on the margin of the cornea, one-third of an inch in length, and half as broad. The patient got perfectly well, and vision was unimpaired. In 1829, there was nearly a circular opacity of the cornea, one-eighth of an inch in diameter, in the site of the protrusion; the iris adhered to it.

CASE V. (XI.) *Acute Gonorrhœal Opthalmia—Deep Ulcer at the Margin of the Cornea—Complete Recovery.*

John Biggs, æt. 21, had been subject to sore eyes, when he contracted a gonorrhœa rather severe. In 11 weeks the right eye began to inflame. In another week he was admitted into the Ophthalmic Infirmary. The lids were tumid; the chemosis concealed the circumference of the cornea, the centre of which was nearly clear; there was severe pain and profuse discharge; the gonorrhœa continued, with some ardor urinæ. *Arteriot. temp. ad* ℥ xvj.—*hirud.* xij.—*calom. et jalap.*—*mag. sulph. 6tis hor.*—*Vesical inter scapulas.* The leeches and blisters were repeated, and soon an alum lotion was substituted for a saturnine. As the chemois subsided, a deep ulcerated trench was seen at the margin of the cornea, extending for about five-sixths of its entire circumference; within this trench the cornea was slightly nebulous. The ulcer proceeded favourably, and in a month after his admission the patient was dismissed with perfect vision. The ulcer healed, and left merely a slight white line near the edge of the cornea.

We have only room for one other case of acute gonorrhœal ophthalmia, in which mercury was employed to its full extent by Mr. Macilwain. It is not susceptible of abbreviation. The patient was a female.

CASE VI. (XIV.) *Acute Gonorrhœal Ophthalmia—Recovery of one Eye—Opacity of the Cornea, Adhesion of the Iris, and loss of Sight in the other.*

"'The patient, a young woman, applied to me (says Mr. Macilwain) for what she called weak eyes,

which I found, on examination, to be a slight degree of catarrhal ophthalmia. I merely ordered her some aperient medicine and poppy fomentation, and, in a few days, the disease had nearly disappeared. After an interval, however, of about three days, she again applied, when I was surprised to find both eyes affected by violent gonorrhœal inflammation. The palpebræ were much swollen; the conjunctiva lining them, as well as that covering the globe, in a state of acute inflammation. the latter portion of the membrane presenting a much raised chemosis; the cornea dusky; great pain in the eyes and head, with a profuse purulent discharge. I now learned, for the first time, that she had gonorrhœa; but I was, for some minutes, foiled in my endeavours to elicit from her any circumstances to justify the opinion that the vaginal discharge had been applied to the eyes; and, when interrogated on that point, she said she had been particularly cautious in avoiding the use of any linen for other purposes, which had been employed in cleansing the parts affected with gonorrhœa. As she was about to leave the room, her mother reminded her that since I last saw her she had washed her eyes with her own urine, and that they had become much worse immediately afterwards, the pain increasing with the addition of discharge and the other symptoms, of which she now complained. The treatment consisted in the free abstraction of blood, and the administration of brisk saline purgatives every three hours till the bowels had been largely evacuated. She was bled from the arm ad deliquium three times, and blood was afterwards taken locally by cupping and leeches. One grain of calomel with a quarter of a grain of opium was then prescribed thrice a day. The effect of this was that one night, without previous warning, she was seized with the most violent degree of ptalyism I ever witnessed. The tongue became prodigiously swollen, hanging out of the mouth, and presenting an appearance which induced apprehensions of its sloughing. The mercury was discontinued, the only other measures employed being the application of belladonna round the palpebræ, and frequent ablution, with poppy fomentation. The result of the case was complete restoration of one eye, partial opacity of the cornea in the other, with adhesion of the closed pupil, and loss of sight.'

Mr. Macilwain adds, 'I always employ mercury in the treatment of this disease; not from any opinion of the identity of the gonorrhœal with the syphilitic virus, but from it having appeared to me that the degree of recovery in such cases had some relation to the severity of the new action produced by this mineral. In following this plan, I have been further influenced by the too frequent inefficiency of the most active anti-inflammatory treatment when employed alone.'" 104.

We shall now relate two cases of the mild gonorrhœal inflammation of the conjunctiva; in the first there is no arthritic affection, in the second there is.

Case VII. (XVI.) *Gonorrhœa, with mild Inflammation of the Conjunctiva.*

Mr. E. L., æt. 26, having never suffered from rheumatic symptoms, had simple gonorrhœa. Two years after this he contracted another, and in five or six days his eyes became inflamed. On the 5th the palpebral conjunctiva was bright scarlet; on the circumference of the globe it was of the same colour, but on the anterior part of the sclerotica it was not much affected. The sclerotica did not participate in the inflammation. A thick portion of thick white mucus lay between the lower lid and the globe on each side, and a little yellow discharge appeared at the inner angle of each eye. There was slight general swelling of the lids, and the eyes were watery, without intolerantia lucis. *Saturnine lotion—aperient—saline with antimony.* On the 10th day the eyes were nearly in the same state. *Solut. argent. nit.* (gr. iv. ad. ℥j.) *dropped into each. Collyrium of hyd. oxymur.* gr. j. *in aq ros.* ℥viij. *Ointment of hyd. nit. oxyd.* gr ij. *fresh butter* ℥i. *applied to edges of lids at night.* The nitrate of silver wash caused some smarting at first, but by a repetition of this treatment the eyes became perfectly well, and so continued. A slight gleet remained.

Case VIII. (XVIII.) *Gonorrhœa—Affection of the Joints—mild Inflammation of the Conjunctiva.*

Mr. C., æt. 38, a corpulent free eater, subject to rheumatism, contracted gonorrhœa. Subsequently the synovial membrane of the right knee became inflamed, and there was general and painful swelling of the hands. When Mr. Lawrence saw him the knee-joint was diminishing. *Plummer's pill—colchicum—evaporating spt. lotion.* The gonorrhœal discharge ceased, and the joints became better. At this time, mild inflammation of the conjunctiva came on in both eyes, and went off in three or four days, with tepid lotions and a continuance of the former medicines. After the application of a blister to the knee the effused fluid was completely absorbed: the hands remained slightly puffed and tender, but these symptoms soon disappeared, under the use of warm sea bathing and Plummer's pill.

The last few cases in Mr. Lawrence's ample porte-feuille, are examples of the gonorrhœal inflammation of the external tunics of the eye.

CASE IX. (XXI.) *Acute Inflammation of the External Tunics, with Gonorrhœa—Rheumatism.*

A medical gentleman, æt. 24, of rather delicate conformation, contracted a severe gonorrœa. In three weeks the eyes became inflamed without obvious cause; they were red, very painful, acutely sensible to light, and watered copiously; there was some mucous discharge. He lost 150 ozs. of blood from the arm and had 230 leeches applied to the eyes which recovered completely. The urethral discharge had previously diminished; it ceased altogether during this active treatment. In twelve or eighteen months another attack occurred after gonorrhœa of a fortnight's growth. The conjunctiva suddenly became inflamed without obvious cause, he lost 18 ozs. of blood, and the membrane became clear. Next morning there was a relapse, arrested by twelve leeches. The gonorrhœa now got nearly well, the patient went into the country, and took cold from wet feet. The eye became again affected, but in a different way; there was great pain, excessive intolerance of light, profuse watering; the sclerotica and iris were affected. *V. S. brach. ad* lb. iv. *in three days*—100 *leeches—colchicum and counter-irritation.* There was little or no benefit, when a metastasis took place from the eyes to the limbs, every joint becoming more or less affected, and the right knee greatly distended. The strength was, naturally enough, much reduced. The affection of the eyes and limbs alternated for a fortnight, when the former became quite well, but the patient remained crippled. He was now put on tonics, with sea air, warm salt bathing, and friction. Under this plan he was cured, and remained well till the Winter of 1828, when he had severe affection of the joints from cold. The eyes did not suffer. He recovered completely.

CASE X. (XXIII.) *Gonorrhœa—Rheumatism—Gonorrhœal Inflammation of the External Tunics.*

Mr. F., æt. 29, had not suffered from rheumatism, with the exception of some slight occasional pains, and had once had a mild gonorrhœa. On the 14th of December, 1829, Mr. Lawrence was called to see him. He had laboured under gonorrhœa for seven weeks, had felt severe pains in the back and lower limbs for a fornight. The eyes had become sore on the 13th, and on the morning of the 14th he had been bled from the arm to forty ounces with relief. There was still considerable distention of the sclerotic of both eyes, pain, particularly in the right, intolerance of light, and profuse lachrymation. *Poppy fomentations —aperients—salines with antimonials.* On the 15th the patient complained of considerable pain in the right eye, which was most inflamed. *Twelve leeches to the right eye—eight to the left.* After this the eyes were nearly well, and the urethral discharge increased. The patient took great care of himself, yet on the 27th of January the eyes grew worse. On the 28th he was seen by Mr. Lawrence. The inflammation had returned—there was a red zone round each cornea—a small white speck near the centre of the left—considerable pain—profuse lachrymation and dimness of vision, especially in the left eye. *Twenty leeches—blister to the nucha—calomel and jalap followed by salts—poppy fomentation.* The eyes were much better the next day. *Plummer's pill.* On the 6th Feb. the eyes appeared quite well, and the vision was clear. On the 20th he had troublesome rheumatic pains, confined to the lower extremities, and chiefly affecting the left hip and heel, and the right instep. *Plummer's pill continued—colchicum.* The gentleman soon removed to the sea side, and took warm sea bathing, and at the end of a month he returned to London and resumed his usual avocations.

We have not space for the insertion of other cases. In the next article we shall pass to the second portion of the volume, which treats of the syphilitic diseases of the eye. We cannot part from Mr. Lawrence without warmly thanking him for the pleasure we have experienced in perusing the present work. The subjects are treated with clearness and talent, and we recommend the book to the attentive consideration of every practical surgeon.

IX.

Sketches of the Medical Topography of the Ionian Islands. By the late *John Hennen*, M. D.

In a former Number, we gave some account of the medical topography of Gibraltar, the key of the Mediterranean Sea, and one of the most impregnable fortresses in Europe, or the world. The Ionian Isles, from their position and importance on the frontier of a resuscitated—we wish we could say a *renovated*, nation of high antiquity and classical renown, are become a colony of great interest to the British nation ; and their medical topograhy deserves a full investigation, since the health of a large number of our troops, as well as of civilians and sailors, is deeply concerned in their salubrity or insalubrity.

Medical Topography of Corfu.

> Where Scheria's rocks the northern wave divide,
> And old Cassopo greets the straitened tide—
> Hail, blest Phæacia !—*Horæ Ionicæ.*

This island, the present seat of government of the Septinsular Union, has been immortalized by Homer, in the sixth book of the Odessy, under the names of Scheria and Phæacia—afterwards by that of Corcyra, and now Corfu. It is separated from the coast of Albania by a narrow channel of 21 miles—it is mountainous in character, some of its elevations being 2000 or 3000 feet above the level of the sea—all of them of limestone formation, interspersed with silex. There are only three rivers ; but there are several streams that run from marshy villages, round the whole circumference of the island.

Of fresh-water lakes, or rather marshy ponds, there are a great number on this island. They might be easily drained—and, at all events, they are undergoing a natural process of drainage from alluvial deposites. There is one marsh or lake, Val di Roppa, six or eight miles in extent, which bears crops in Summer, and is a sheet of water in Winter. Amongst the casual visitors to this lake for the purpose of shooting, fevers and agues are apt to prevail—and intermittents of the most obstinate kind are found among all the neighbouring inhabitants in the autumnal months. There is a large salt-water lake at Govino, the old Venetian harbour, which is rapidly filling up, and the neighbourhood of which is extremely unhealthy. A large salt-water lake, called Calachiopulo, not more than a mile from the garrison of Corfu.—It is celebrated by Homer as the harbour of the ancient Phæacians, and on its banks were the gardens of Alcinous. It is rapidly filling up. Passing over the canals and salines, we come to the—

Climate of Corfu.

This is far from good, according to Dr. Hennen, especially in Summer and Autumn. It is extremely variable at all times, and infinitely inferior to the healthy parts of Italy. Here, as in other places, and even in Italy

the thermometer and barometer are poor indices of the atmospherical impressions which the climate produces on the human frame. A person must have felt the winds of the Mediterranean to be able to describe or even imagine them. The northerly winds sweeping over the mountains of Epirus, are cold—while all those from a southerly point, are oppressively hot, accompanied with mist or rain—resembling, in fact, the tramontanes and siroccos of Italy.

"Without affecting the thermometer or barometer in any remarkable degree, the sirocco almost invariably gives the sensation of burning heat and oppression at the chest, accompanied with langour and a propensity to perspire with the slightest exertion. I have scarcely ever met an individual who was not more or less sensible to these effects; some, who have felt them but slightly on their first arrival, have become exquisitely sensible to them after some time; many can foretel the approach of a sirocco some hours before it begins to blow, by the peculiarities of their feelings, and there are few indeed who cannot at once decide, that this wind has commenced, without making any reference to external objects; but it is by the sick and the weakly convalescent that its depressing effects are most severely experienced.

It is a remarkable fact, that wounds and ulcers, and the discharge from mucous surfaces, generally deteriorate during the prevalence of a sirocco; and it is equally certain, that if vaccination, or small-pox innoculations, are performed at this period, they are extremely liable to fail; and if they succeed, the progress of the pustule is often suspended, and it is frequently ten or twelve days in reaching the state usually attained in six or eight.

That the southerly wind in general, and the modifications of it in particular, is unfavourable to the health and spirits of man, is an opinion upon which all classes of persons with whom I have conversed throughout the Mediterranean, are unanimous. All the ancient physicians, who have written upon Mediterranean diseases, from Hippocrates downwards, give their testimony to the same effect, and speak of the pestilential nature of the southerly winds as perfectly familiar. Homer himself, a most accurate observer of nature, when describing the wound inflicted upon Mars by Minerva, a description in which he puts forth all his powers both of imagery and language, represents the god of war as ascending to Olympus in a cloud of

> 'Vapours blown by Auster's sultry breath,
> Pregnant with plagues, and shedding seeds of death.'
>
> ILIAD, *5th Book.*

Whether all the lower animals feel the relaxing effect of the sirocco wind, I know not; horses certainly do, for they sweat sooner, and are more languid than at other times; but on inanimate nature its effects are very obvious, and have repeatedly come under my notice in various parts of the Mediterranean.

The walls of houses, stone floors, and pavements, invariably become moist when the sirocco blows. I have seen the stone floors at Corfu absolutely wet without any rain having fallen; and gentlemen, who have made hygrometrical experiments, state to me, that the instrument has frequently fallen from ten to twenty degrees during the prevalence of this wind.

Although the sirocco is so charged with moisture, vegetables, especially that part of them exposed to it for any length of time, appear quite shrivelled and burnt up, and very frequently they are destroyed altogether. Wine bottled in a sirocco is greatly injured, and often destroyed. Meat taints astonishingly soon during its prevalence. No prudent house-keeper ever salts meat at this time, for it either taints at once, not taking the salt, or else it keeps very badly.

Drains and necessaries emit more putrid smells in a sirocco, than at any other period.

No carpenter uses glue in a sirocco, for it does not adhere.

No painter willingly works during its prevalence, for his paint will not dry. I have myself specimens proving this fact, which are now, at the end of three months, nearly in the same state as when painted. The natives assert, that if paint, applied during a sirocco, does happen to dry by intense heat, and a change of wind, it always oozes again on the return of the sirocco: for the correctness of this statement I cannot vouch.

Bakers diminish the quantity of their leaven during the sirocco, as dough is found to ferment sufficiently without it.

It may, perhaps, be difficult completely to account for these peculiarities. The Father of Physic, acute in every thing, is peculiarly so on this subject, and his observations are worthy, not only of attention, but of deep study, because they apply in a peculiar manner to Greece. 'The south wind,' says he, 'blows from places of a like nature with the north: for, coming from the south pole, and breaking through much snow, ice, and hard frosts, or hail, it must needs affect those that live nearest it in the same manner as the north wind; but not the whole country alike that it passes through. For, as it passes through the course of the sun, and under the equator, the moisture is exhaled by the sun, and being dried, becomes rarified, so that it cannot but be hot and dry when it arrives there. In the places, therefore, that are nearest, this hot and dry quality must be imparted, as it is, in fact, in Africa, where the vegetables are dried up, and the inhabitants dried insensibly. For, having neither sea nor river to attract moisture from, it attracts that of animals and vegetables; but when it crosses the sea in this hot and rarified state, it fills the country it falls upon with much humidity; and therefore, when the situation of a place does not hinder, the south wind must needs be hot and moist.'"

It is fortunate that man can mitigate, in some degree, the effects of the sirocco, by shutting the doors and windows, and confining himself to the house. Dr. H. felt great relief by keeping a large wood fire constantly burning in his room—though to others it appeared unsupportable.

The *soil* of Corfu is generally rich—principally a stiff tenacious clay, very retentive of moisture. Arable land bears a very small proportion to wood-land and pasture. The olive is much cultivated.

Exhalations, as might be expected, are abundant here, and of a malarious kind. "There is scarcely a mile in the island free from them, either as they proceed from decaying vegetation, from under-ground moisture, or from the more open swamp." Every shower that falls, if succeeded by heat, is productive of miasmata—but August, and the beginning of September, are the worst months in this respect. The town is more healthy than the country at these periods. The miasmata produce different effects on the natives and on the less seasoned troops—they give rise to intermittents in the former, but severe remittents in the latter.

Passing over vegetable and mineral productions, we may stop a moment on man.

"The upper and front parts of the skull are well developed; the features are, in general, pleasing, and wear an air of intelligence. The complexion, in healthy persons, inclines towards olive; and in some of the females, who are not exposed to the sun, it is clear and white. The complexion of the peasantry is, of course, much affected by the sun. Those who reside in the Lefchimo district in particular, and in the neighbourhood of marshes in general, have a sickly leucophlegmatic cast. The eyes are almost universally brilliant and full, in both sexes, and generally dark-coloured; the teeth good; the hair generally brown or black, and bushy in the men; the beard copious; the figure of the middle standard—sometimes beyond it—and, if not indicative of strength, it promises

activity. The constitution sanguineo-choleric; the gestures vivacious; the gait erect and elastic; and the enunciation voluble and emphatic." 166.

In respect to drains and necessaries, the Corfiots are pretty much on a par with the inhabitants of the Eternal City.

"In lieu of drains, cesspools and necessaries, the Corfiots have substituted either the practice of throwing every species of household offal into the public streets, or depositing them in receptacles called 'Calle Morto.' The calle morto, literally 'stagant street,' is an enclosure formed at the back of a house, or between the backs of two houses, into which all the filth is discharged; there it often accumulates, until, in process of time, it either rises to the lower windows, and flows into the adjacent buildings, or else bursts the side walls which confine it. Occasionally we see some measures taken to cleanse these Augean depôts, by a train of mules with baskets, which are filled from a breach made in one of the side walls; judging by the appearance and smell of the loading of these animals, the employment of the unfortunate labourer, who works within, must be one of the most disgusting drudgeries to which human nature can be condemned. There are from eighty to ninety of these pestiferous magazines which may be called public, as being common to several buildings, exclusive of those of a minor class, which receive the collected impurities of only single houses." 175.

Even in FLORENCE, which is considered to be one of the cleanest towns to the southward of the Apennines, these reservoirs of filth exist under every house, and are annually or biennially cleared out and sold to the gardeners, to the dreadful annoyance of all northern olfactories that come within the sphere of their effluvia.

The population of Corfu amounts to about seventy thousand souls. The Corfiots are very abstemious when they fare at their own expense; but when they feast with others they are "capable of consuming a vast quantity of food, both animal and vegetable, together with copious libations of wine." The estimate for the food of a peasant is about two pounds of Indian corn per day, made into coarse bread, and seasoned by a few leeks, wild herbs, or cloves of garlic, with a little oil and vinegar, and washed down with some water or weak wine, which they denominate *vinetto*. On gala days some caviare, or a morsel of salt fish, adds an additional zest to the meal. On this humble fare the peasant labours the whole day in the fields. He rises early, swallows a glass of spirits, eats one half of his provisions at noon—the remainder at the close of the day—and he then retires to repose for the night in the same garments which he laboured in during the day! Our labouring classes would soon be in open rebellion on such coarse provender for the belly, and rude couches at night!

In many countries smoking tobacco may be considered an amusement—in Corfu it is almost an employment. "The pipe is never out of their mouths." The practice, Dr. H. thinks, must necessarily injure the stomach, but he is convinced that it is a preservation against marsh miasmata. The Corfiots have "an irresistible desire for the discussion of news, in the pursuit of which all their mental and corporeal energies are exerted." Old and young, rich and poor, fly to the town-walls, to the Esplanade, or to some of the adjoining villages, to debate, in groups, on any political event or rumour. It is no matter whether the *bruit* be true or false, if it give him exercise for his tongue. Nor is his body unmoved on the occasion; on the contrary, he distorts it with the most eager and ridiculous gesticula-

tions. Apoplectic, hysterical, epileptic, and other nervous attacks, are occasioned or renewed by popular meetings, where the greatest excitement obtains.

Morals appear to be at a very low ebb in the Ionian Islands, as well as on most points of the Mediterranean shores. Mr. H. places the national character of the Corfiots as "the very lowest in Europe." Before the English protection existed, "justice was openly sold to the highest bidders—public faith was unknown—and Greek falsehood is proverbial." Their clergy are taken from the scum of the earth, and are illiterate, superstitious, and immoral. One of the principal causes then of degradation and moral decadence in all classes of society is, our author thinks, "the depravity of the clergy." Much, however, must be allowed for "Turkish tyranny and Venetian prostitution" in the demoralizing process.

DISEASES OF THE INHABITANTS.

In Spring, synochus and catarrh; in Summer, bilious remittents; in Autumn, intermittents, rarely typhus; in Winter, pneumonia and other inflammations are the prevailing complaints. Worms are prevalent at all seasons and among all classes. As was mentioned before, the cause which produces intermittents among the inhabitants, gives rise to severe remittents among the troops. A formidable epidemic, supposed to be yellow fever, raged in Corfu about 25 years ago, generally proving fatal on the fifth or sixth day. Bleeding was found to be pernicious—bark, blisters, and tonics were the best remedies. In the ordinary remittents, the native practitioners never use the lancet. After an emetic, the bark is administered.

The state of physic and surgery is at a low ebb in the Ionian Isles. The ordinary routine to qualify for the profession, is an attendance on some old physician or surgeon for a few years, after which a meeting of established practitioners is held, before whom he is examined, and receives a license to practise. There are seven physicians and three surgeons in the town of Corfu. They are stout Brunonians.

As far as we can depend on official returns, not however, perhaps very exact, the prevalence of phthisis in the Ionian Isles is not great. In Corfu, the proportion of phthisis to other complaints among the troops was one in 218 cases. Dr. Hennen is of opinion that the climate of the Ionian Isles only hastens on the fatal termination of confirmed phthisis, but queries whether it may not be advantageous where there is merely a *disposition* to the disease. We wish Dr. Hennen were alive to tell us in what this *disposition* consists? If it consist in the existence of tubercles, small, and not yet taking on the state of mollescence, or as it is more commonly called, suppuration, will a Mediterranean climate retard or arrest the morbid process? We fear it will not. It is curious, however, that of the six islands, three that are notorious for malaria, and, consequently, for intermittents, present fewest cases of pulmonary affection in general. These are Zante, Cephalonia, and Corfu. Ithaca, which is peculiarly dry, has most pulmonary complaints. Santa Maura, although marshy, has had less than Cerigo, which is dry. In respect to pure phthisis, Ithaca presents one in 588—Corfu, one in 212—Santa Maura, one in 211—Cerigo, one in 191—Cephalonia, one in 160—and Zante, one in 147. This table, therefore, does not quadrate with

the former observation, as respects phthisis compared with pulmonary complaints in general. Thus Ithaca, which afforded the greatest number of pulmonic inflammations, turned out the smallest number of cases of phthisis. This fact, as far as it goes, militates against the doctrine, that tubercles are the offspring of inflammation.

TREATMENT OF THE FEVERS OF CORFU.

This relates, of course, to the troops from England. In robust habits, and especially where the men were recently from England, and the inflammatory symptoms ran high, the lancet was used—but with restriction, as it was a precarious remedy in the advanced period of the season, or where the individuals were debilitated. Leeches to the temples, epigastrium, region of the liver, &c. were beneficial. The blood seldom exhibited the buffy coat. Purgatives were found of the utmost importance, as depraved secretions were apt to accumulate to a great extent. "Calomel, in various combinations had a decided preference. Whenever intermissions, or even remissions were observed, the bark was necessary. "But the sheet anchor, and that which, if it does not supersede, at least most powerfully assists all other remedies, is the early employment of mercury, especially in the more violent cases."

"Almost every individual has his own peculiar methods of administering mercury; in combination with opium; with antimonials, and in combination with cathartic extract; in small doses frequently repeated; in doses of greater extent; in friction, &c. &c. All these may occasionally have their advantages, but however used, where it can be brought fairly to produce its effects on the system, particularly on the hepatic organs, amendment may be looked for in all, and recovery predicted in most cases where the energies of the constitution are not broken down." 232.

Dr. Hennen justly cautions the practitioners in hot climates, and the caution would not be unnecessary beneath our own gloomy skies, to guard against a multiplicity of medicines in fever—bearing in mind, "that the stomach of the patient belongs to an organized and living being, at no time endowed with the passive properties of a chemical vessel, but in a state of disease tremblingly alive to every impression."

DYSENTERY.

In the severe forms, early bleedings were found to be powerful means of relief, especially leeches to the abdomen, with warm baths and mild purgatives. But, as in fever, mercury was the sheet anchor.

We must now close our notice of the medical topography of Corfu, nor will it be necessary to touch on the other islands belonging to the same group, though their separate consideration will be very useful and interesting to English practitioners in the Ionian Isles, every one of which should possess Dr. Hennen's work. We shall dedicate an article to Malta, the section on which is one of the ablest in the talented author's book.

X.

TWO MEMOIRS READ BEFORE L'ACADEMIE ROYALE DES SCIENCES, AT PARIS, ON THE SUCCESSFUL INHALATION OF DILUTED CHLORINE IN THE EARLY STAGES OF PULMONARY CONSUMPTION, &c. Translated from the French of *M. Gannal*, by *W. H. Potter*, M. R. I. Operative Chemist. Octavo, London. 1830.

THE sanguine expectations which were elicited by the theories of Lavoisier, and the ardent imaginations of Beddoes and others, respecting the efficacy of gases inhaled for the cure of breaches of structure in the lungs, have long been dissipated before the clearer lights which have been shed on pulmonary consumption by pathological anatomy. Oxygen gas was to have done as much in former times, as St. John Long's liniment and insufflations are now said to do—and the bubble generally lasts long enough to run the philanthropic enthusiast into an ocean of absurdities, and put abundance of money into the pocket of the charlatan. There is an hallucination attendant on phthisis, which will ever produce a rich harvest for unprincipled quacks and impudent pretenders. The phthisical patient is so confident of recovery, that every secret medicine administered to him is lauded as producing miraculous effects—and these effects are asserted with the last gulp of air which he draws into a disorganized mass of lungs! To open the eyes of the community, then, towards the fallacies of pretended specifics, and the mendacious assertions of quacks, is utterly impossible, and we have long since seen the impracticability of the attempt. The community *will* be deceived—indeed, they almost *wish* to be deceived—and as the exuberance of population has ever been represented as a destructive evil, in all ages and in all countries, it would be vain—perhaps it would be impious—to stem an impulse or instinct, which appears to be implanted in human nature for some wise purpose by the Omniscient Ruler of the Universe.

The medical philosopher, however, has nothing to do with this part of political arithmetic. The man who tells you that exuberance of population is an evil—and who points out to you the various checks to this exuberance, consults you, at the same moment, on the best means of increasing the number of his family, of preserving their health—and of prolonging his own existence! It is to this individual feeling that the medical man has to direct his attention—and not to the abstract doctrine of population.

But to return. Notwithstanding the failure of inhaling oxygen and other gases—the fumes of tar, and other medicinal substances, there is still a fond hankering after the direct application of remedies to the ulcerated cavities of the lungs—an application which can only be made through the medium of the air we breathe.

"But now that chemistry, which at first sight appeared to have invaded the province of medicine, by furnishing some certain remedies against the diseases to which we are exposed, is at last relieved from the discredit which has unjustly been heaped upon its application to the healing art, it remains to discover, if amongst the substances revealed to us, by its means, there is not one which may produce the favourable effects of oxygen, without lying open to the same objections.

That such a substance exists is most evident, and this is CHLORINE, first studied by Guyton Morveau, who pointed out many of its applications. We are now well acquainted with its extensive utility as a disinfecting agent, and with its energetic action on animal matter generally. Recent facts, published by physicians of first-rate eminence, have shewn that it powerfully modifies organic action, cleanses and neutralises the matter of chronic ulcers, assigns limits to mortification, suppresses long-accustomed mucous evacuations, and may be given internally in scorbutic cases with advantage, as also in putrid fevers and other similar diseases.

Most of these facts have been pointed out in the works of Guyton Morveau, Hallé, and Fourcroy. But thanks to the exertions of an esteemed pharmacien, thanks to that zeal for the general good which leads men in these days to unite their efforts to procure the triumph of all that is useful, the applications of Chlorine, for instance, combined in excess with the metallic oxides, to which it adheres but slightly, have been rendered general, and crowned with abundant success.

Four years of experience have contributed more to setting off the advantages of this new discovery, than the twenty years which followed the fine researches of Guyton Morveau. We may then conclude from the mass of knowledge now acquired respecting Chlorine, that it not only destroys putrid animal exhalations, and is on this account the most powerful disinfectant we possess, but that it exerts a salutary influence, still more strongly marked, upon living beings themselves, and powerfully modifies the organic actions by which they are distinguished." 14.

It now remains to inquire whether this same chlorine may be administered with advantage in cases of pulmonary consumption. Analogy, says the author, would lead us to conclude that, since the remedy has been found useful against copious mucous discharges from the vagina—ill-conditioned ulcers, and gangrene, it should produce similar effects in the ulcers and their secretions, constituting phthisis. The probability of this reasoning, M. Gannal thinks, was converted into certainty, by the fact of his observing, in 1817, that the printed calico-manufacturers of St. Denis, who happened to be affected with phthisis, quickly recovered their health while exposed to the exhalations of the chlorine disengaged in the various processes. Laennec tried the remedy in La Charité; but either did not find it efficient, or did not follow up the plan with sufficient energy. Since that period the author avers that he has had several opportunities of witnessing the good effects of chlorine in consumption and pulmonary complaints. The following results are given by the author to shew the success of the remedy.

"First of all I must point out the manner in which I have been accustomed to administer the gas. In the fumigations recommended by Guyton Morveau, the Chlorine produced in a state nearly dry and in great quantity, often mixed with muriatic acid gas, and also contaminated with small quantities of sulphuric acid carried over during the operation, produced violent irritation in the pulmonary passages; an intense heat; a feeling of oppression; and soon after a sharp fit of coughing were the effects of its inhalation. Thus it was found necessary before the disinfecting process was commenced, to clear the rooms, and when the Chlorine was disengaged in occupied apartments, the apparatus was obliged to be moved away to some distance from the sick, who often, notwithstanding the greatest precautions, were much inconvenienced, and coughed violently.

This mode of procedure could not therefore be applicable to phthisical patients.

Guyton Morveau had proposed to substitute for the bottles of acetic acid, and other sub-

stances of but little efficacy, bottles of chloruretted oxide ; but even this means, which has since proved of such general application, was not itself free from objections.

I shall not undertake to determine whether the Chlorine evolved from Chloruretted oxides, differ in a chemical point of view from that which in a perfectly pure state is dissolved in water. However, I am inclined to believe that such is the case; the smell of this Chlorine is manifestly not the same as of that procured in the ordinary method, by the mutual action of hydrochloric (muriatic) acid and oxide of manganese. Though I will not at this time venture to speak positively on this point, I think that the Chlorine disengaged from the chloruretted oxides (potass, soda and lime) is contaminated with some particles of a foreign nature, which affect its purity when it is immediately applied to the delicate organs of respiration. This statement is rendered more probable by considering what follows : I caused some of my patients to respire Chlorine evolved from a chloruretted oxide, but at the third fumigation they experienced a lively sensation of warmth in the chest, constriction of the throat, thirst, and all the signs appertaining to powerful stimulus, which made me quickly desist.

Chlorine then, as produced from its combination with oxides, is not of sufficient purity to warrant our applying it to the delicate and already irritated organs of the phthisical patient.

To remedy this inconvenience, I made use of a solution of the pure gas in distilled water. I take a three-necked bottle, the first opening receives a straight tube, the extremity being plunged into about four ounces of water, the second opening has a tube, which leaving the top of the bottle is bent at right angles, and terminates in a flattened embouchure, the third is furnished with a glass stopper ;* it is by this last opening that the water is changed, and the gas introduced. The water in the bottle at the time of fumigation should be at the temperature of about 32° of the centigrade thermometer equal to 89° 6′ of Fahrenheit's scale ; a certain quantity of liquid Chlorine is then added ; and by gently shaking the bottle a portion of the gas is disengaged, which may be breathed by applying the mouth to the extremity of the bent tube. As the air is gradually withdrawn from the bottle, a fresh quantity is supplied from the atmosphere by the straight tube, bubbles up through the weak Chlorine solution charged with the gas. The fumigation may be continued for the space of four or six minutes, after which the disengagement of gas ceases.

It is of the utmost importance that we proceed with the greatest caution, being guided by the consideration of the energetic nature of the means employed, as also of the delicate fabric of the organ concerned. In my practice I commence with ten drops of the liquid Chlorine to two volumes; if the patient can well bear this dose, and according to the susceptibility of his lungs ; I raise it gradually to 12, 15, 20, 30, 50, 60, 72 at a time. However, there are scarcely two persons who can bear exactly the same doses ; we must therefore, as it were, carefully explore the state of the organ to be acted upon, and from thence deduce the proper quantity.

The same reasoning holds good as regards the *number* of fumigations, during the twenty-four hours. They must be regulated by the effect produced, and the sensibility of the parts, generally the number may be from six to eight. It appears evident according to the above process, that the Chlorine inhaled cannot enter the lungs unless impregnated with a number of aqueous particles ; from which circumstance it is much less irritating than in the dry state ; and lastly, not being commixed with any foreign matter, its action confined to itself is not complicated with any superadded irritation." 22.

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* "The apparatus fitted up complete, as recommended by M. Gannal, as also the solution of Chlorine gas, in a perfectly pure state, may be obtained at the Chemical Laboratory, No. 11, Old Compton Street.

The apparatus for the exhibition of this gas is simple and easily obtained. It is portable and being made of glass, the chlorine cannot become contaminated by metalic molecules. It has happened to this as to many other new remedies—that patients irrecoverably gone of phthisis have had recourse to the measure without benefit. We cannot do better than introduce some of the cases which the author has adduced as verifying the salutary effects of the remedy under consideration.

"The first is that of Mr. L * * * *, of Gentility, this man was 40 years of age, of a lymphatic and bilious temperament, and had been troubled a long time with pectoral disease when he applied to me. I sent him to Dr. Laennec (nephew of the professor); this physician after examination found that the chest under the right clavicle had a more dull sound than under the left; respiration sufficiently free throughout the right side, was *caverneuse* under the arm-pit and clavicle, and accompanied with a sort of moist rattle; in the left portion, respiration was natural, only accompanied here and there by a slight wheezing.

From these symptoms M. Laennec announced the existence of a tubercle on the top of the right lung, and 'I dare even affirm,' he adds, 'that the whole of this lung is more or less covered with tubercles of various magnitudes, indicated by the peculiar and variable sound attending respiration, as also by the crackling rattle. I think,' says M. Laennec, in conclusion, 'that this case is one in which the Chlorine fumigations may be tried, but with discretion, however, on account of the disposition to hæmoptysis, and to pleuritic inflammation.'

This man, who had been ill three years, commenced on the 18th October, 1827, to use fumigations, the dose being ten drops, eight times a day, from the 18th to the 23rd; respiration became less obstructed, the sense of oppression was much diminished, the expectorated matter from being purulent assumed a mucous appearance, the diarrhœa ceased, appetite returned, and the digestive organs again performed their healthy functions, and he passed more tranquil nights.

On the 23rd, however, from eating herrings, symptoms of indigestion were produced, the expectoration was tinged with blood, but notwithstanding this the Chlorine was still continued, and the patient gradually progressed. No inconvenience was felt from breathing the gas, the patient seemed extremely sensible of the least atmospheric change, colicy pains were experienced on the 17th of December, but were relieved by emollient applications, the appetite continued good, digestion went on well, the patient had one stool daily, his nights were undisturbed, the nocturnal perspirations were not so frequent, the expectorated matter purulent in the morning was mucous during the day. The sense of oppression is almost gone, and the cough is much less frequent. On the 23rd of December, the pulse was 62. The season was much against the successful exhibition of the remedy, and if the man is not cured, we cannot refuse to admit that the Chlorine on the one hand, never incommoded him, and on the other, produced such alleviation that without doubt the patient's life was evidently prolonged.

The second case I shall mention is that of M. D———; I cannot better describe this than by copying the report of his physician, Dr. Honlet, to one of his friends who desired the particulars. 'Consulted early in the month of September, by M. D—, I declared him a consumptive patient, so far advanced in the disease, as to judge him incurable. On the 8th of the following October, by the advice of somebody whose name I do not recollect, Chlorine fumigations were proposed, as a means likely to effect a cure; and, as you may imagine, most cheerfully acceded to on my part, so much the more as this mode of treatment was totally unknown to me. As a farther proof of its beneficial action, I declare candidly, that not only was this very evident to myself, but also to each of the other physicians (M M. Cretin and Guersent) who also saw this patient.

'The fever and the coughing fits yielded to the remedy instantly; the digestive organs experienced a freedom of function hitherto unknown; the cough was now less frequent; and the sputas from a purulent character became changed to muco-purulent, and lastly more decidedly mucous. The fumigations were repeated four, five, and six times a day, three or four minutes at a time, and these, which were more or less charged with Chlorine, sustained our hopes for some time. The patient taking advantage of his partial restoration, ventured to walk from the Faubourg St. Martin to La Place Royale; but at his return his imprudence cost him much, he was seized with a fit of coughing, blood was expectorated, attended by a febrile paroxysm, from all of which it was evident that the mucous surfaces of the bronchiæ and stomachic viscera becoming the seat of disease, extended their morbid action to the neighbouring lungs.

'All hope was now at an end, and the patient given over. The fumigations were, however, still persisted in at the wish of the patient, for he was in the habit of saying, and repeated the same to-day, that 'they expanded his breast and stomach, and procured him some internal delightful sensations.' (These expressions were copied in a letter of the 19th December, 1827.)

The third case I shall mention is M. Le Compte de * * *, who had been ill for about two years, he had taken large quantities of pectoral medicines, a blister had been applied to his arm when he left Belgium to return to Paris, according to the advice of his physician. His cough was troublesome, obstinate, always accompanied by purulent expectorations; he slept only at short intervals; a dull sound was heard at the upper part of the left lung. M.D., of a dry and warm temperament, by the advice of several physicians, whom he had consulted, continued the plan of treatment already pointed out, and was recommended by them to pass the winter at Nice, in Italy, or in some other southern country.

When I was called to him I commenced the Chlorine fumigations on the 21st October, 1827. Their first effects were to diminish the frequency of the cough, and the quantity of expectorated matter. The appetite improved, colour returned to the cheeks, the skin remaining dry and hard, baths were ordered, and Dr. Begin recommended a mild regimen. The health of the patient has been improving since the 1st of November, and excepting certain unfavourable changes produced by atmospheric variation, things have worn a promising aspect, and at present there is a well grounded hope of a perfect cure. The peculiar sound in the left lung has ceased, the appetite is good, the nights tranquil, the usual strength recovered, and every thing shows fair for a speedy restoration."* 31.

M. Gannal had commenced experiments in various hospitals, but the results were not sufficiently matured when his work went to press. He avers that every one of his patients "received some relief"—"every one has had his respiration rendered more free—his expectoration diminished—the sense of oppression lessened." No increase of heat, fever, or hæmoptysis has occurred from the remedy. All these facts, he thinks, indicate a diminution of pulmonary irritation, and an increase of vital energy.

In a second memoir read before the Academy of Sciences, M. Gannal has detailed some more cases, a few successful, but most of them the reverse. It is to be acknowledged, indeed, that the subjects for experiment were of a very unpromising kind, and therefore the chlorine only failed where every other remedy would have shared the same fate. We confess, however,

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* The first and second cases died soon after the memoir was concluded. The third M. Le Comte de * * * * recovered entirely.

that we do not entertain any very sanguine hopes from inhalation of chlorine, or of any other medicinal substance, in real tubercular diseases; though we would not discourage fair trials of any remedy in such a deplorable malady.

XI.

GLANDERS IN THE HUMAN SUBJECT. By *Dr. Elliotson.*

[Medico-Chirurgical Transactions.]

THIS is a very extended paper, occupying thirty-five pages, and will require a minute analysis.

Case 1. Thomas Maskall, aged 17 years, was admitted into St. Thomas's Hospital, under Dr. Roots, on the 19th March, 1829. The upper part of the face, including the eyelids and the nose, with portions of the cheek on each side, were greatly tumefied, so that the eyes were closed. The eyelids and swollen portions of the cheeks were red and hot, dry and shining; but the nose was dark-coloured, and one side of it was black, cold, and senseless. From around the gangrened portion of the nose and some other parts, a little pus was oozing, as well as a thin and dark-coloured fluid, and from *the nostrils a thick discharge of a deep yellow colour, here and there a little, was taking place, exceedingly copious from the right nostril.* Several hard phlyzacious pustules existed around the nose, and on various parts of the trunk and members. Tumefactions were observed on both fore-arms, and in the back of the right hand. The pulse was 136, the skin hot, tongue white and rather dry, respiration quick and difficult. Bleeding was employed—the blood was buffed—some of the tumefactions were opened and discharged much pus. Tumefactions now appeared on various other parts of the body—the first ones had acquired a purple tint, and the wounds looked dark. There was constant agitation, delirium, profuse diarrhœa, insomnolency. He gradually sunk, and died the next day.

"I was not present at the inspection, but understand that there were proofs of a violent pleuro-peripneumonia in the lower part of the right side, and that two ounces of healthy pus were found between the adherent lung and diaphragm. A dark red patch existed in the stomach, and several at irregular distances throughout the intestines. The mucous membrane of the stomach was very lacerable at that spot. The other viscera, and all the contents of the head as well as the veins of the extremities, were reported healthy: but the mucous membrane of the nostrils was not examined. The abscess which had been opened in the back of the right hand communicated with the joint of the metacarpal bone of the middle finger, but those on the arm did not communicate with the elbow." 175.

This case was perfectly new to the medical officers of the hospital. It was designated "gangrena nasi," and other appellations were bestowed on it, but not one could elucidate its nature.

On Friday, the 26th of the following June, Dr. Elliotson was surprised

to find another young man, with similar symptoms, lying in William's ward. The symptoms we need not repeat. It appeared that he worked with his father, a blacksmith—that two months previously he had taken a large draught of cold porter when hot and perspiring, and had not afterwards felt well. Three weeks prior to entrance into the hospital, he had been attacked with acute rheumatism, from which he was recovering, when a pimple appeared on his nose, succeeded by a blush of inflammation that grew rapidly more intense, when he was sent to the hospital, and ordered colchicum by the apothecary. He had never had any venereal affection or taken mercury, to his knowledge. Dr. E. ordered 50 minims of laudanum and 10 grains of sulphas quinæ to be given immediately, and the latter to be repeated every hour.

"In two hours I visited him again, but found the disease had made great progress in overpowering the system. The elbow, which had been red only before, was now suppurating: the pulse was 166, still smaller and fluttering, and the restlessness was extreme. I instantly gave him ℥ℓ. 1. more of the tinctura opii. and directing the sulphas quininæ to be continued, and as much strong beef-tea, with eggs diffused in it to be supplied as he would take. Neither the nourishment, however, nor any more of the sulphas quininæ, could he be prevailed upon to taste: but he fell asleep soon after this second dose of laudanum, and slept tranquilly, waking occasionally for a minute and turning on the other side, till four o'clock in the morning, when he became very restless for an hour and then expired." 180.

As in the former case, the father was present at the inspection, and would not allow the head to be opened. Many parts of the lungs were gorged with blood and frothy fluid, the corresponding bronchial branches being very dark. There were marks of irritation, or even inflammatory action in the glands of the small intestines. The parietes of the left ventricle were in a state of hypertrophy. Nothing, however, in the dissection was calculated to throw any light on the true nature of the disease, which was awful from its suddenness, rapidity, and gangrenous symptoms. Comparing it with the preceding case, our author came to the opinion of their identity, and concluded that they were specific eruptive fevers—that they were caused by some morbid poison—which poison was furnished by a living system under a similar disease. Still the nature and source of the poison remained a mystery, till Dr. E. saw on the cover of the Medical Gazette, July 4th, "a fatal case of *acute* glanders in the human subject," when it instantly flashed across his mind, that this was the disease by which he had been puzzled. Here follows the case from the Gazette, of which we shall take but a very brief notice.

A corporal in the 2d Regiment of Dragoons, awoke with rigors, headach, and irritability of the stomach, succeeded by depression of spirits, pains in his joints, tumefaction of the left shoulder, &c. In eight days this tumefaction was livid, and similar swellings took place in the arms, legs, thighs, and sacrum, craking and exuding a thin acrid sanies. "The right nostril was gummed with an inspissated discharge." The posterior fauces were much inflamed, and nearly of a purple hue. In four days more, several "warty pustules," the size of a pea, arose high above the skin in various parts of the body, together with a host of anomalous and varying phenomena, which it would be endless as well as needless to describe. By the 12th day

many of the tumours were running into gangrene—the pulse was scarcely perceptible, and on the 14th day he died.

"Neither the thoracic nor abdominal viscera presented any vestige of disease, but as there was in this case no impediment to a full examination, the head, extremities and walls of the trunk were carefully inspected. A cluster of tubercles was found in the cellular membrane, exterior to the pericranium of the left superciliary ridge, and in the right frontal sinus, exactly, according to the veterinary surgeon of the regiment, similar to those observed in the frontal and other sinuses of the horse after acute glanders. On dividing the various livid tumours of the surface down to the bone, 'the muscles appeared perfectly decomposed, and of a dark liver colour, exhaling a peculiarly fetid odour, with points of purulent matter, as it were infiltrated every where through its entire substance, resembling much a hepatized or tuberculated lung;' and under each 'was a cluster of grey circular tubercles, the whole composed of fine cellular tissues, enclosed in small cysts, proportionate in size and consistency to the extent and duration of the tumour, and firmly attached to the periosteum.' The muscles generally, even perhaps the heart, appeared pale and flabby, 'and the cellular membrane infiltrated with a yellowish serosity.'

'It appeared that the patient had had the sole charge of a glandered horse for some time, which had been destroyed on the very evening of his attack; and that he had skinned him, and exerted himself a good deal in cutting up and burying the carcass. But these circumstances did not at first create the least suspicion, and his complaint was considered a very severe case of acute rheumatism, and treated as such.'" 185.

If the two cases which occurred at St. Thomas's Hospital tallied with each other, they did not less perfectly correspond with the foregoing case, and our author felt a conviction that an active investigation would discover an identity of cause. He therefore repaired to the house of the father of his own patient, in Lambeth. The forge was situated in a mews; and it was ascertained that a glandered horse had been kept for six weeks in a shed separated from the place where the young man had worked, only by a thin partition, so defective that the discharge from the animal's nostrils came through the boards, and occasioned an unbearable stench. When the animal was leading to the knacker's, about a month before the commencement of his rheumatism, he fell down opposite to the forge, and the young man went out and patted him about the head. It appeared that he had a habit of wiping his eyes with the back of his hand, and for some time had been troubled with pimples on his forehead and about the nose. Encouraged by this denouement, Dr. E. proceeded to inquiries respecting the other individual, Maskall. He had come from Woolwich, and to that place Dr. E. repaired in July, but the search for Maskall was in vain. Subsequently, however, it was ascertained that a next-door neighbour of the lad kept a miserable poney covered with sores and lodged in a wretched shed. In the cart which this animal drew, the young man often got a ride, and he frequently helped to harness and unharness him. It was sent to the knackers a few months after the boy's death. It was subsequently ascertained that this poney actually had the glanders. The father of the boy also remembered that he had been troubled sometime before his illness with pimples on his forehead and chin, and our author thinks it highly probable that some of the glandered matter came in contact with these eruptions, when they happened to be open.

Meeting Mr. Parrott, of Clapham, one day, Dr. E. mentioned to him

these two cases, and his conviction that they were instances of glanders. Soon afterwards, Mr. P. furnished our author with the particulars of the following case.

"Mr. John Vass, aged 23, a pupil of the Veterinary College, had under his care at Clapham, where his father resided, a horse affected, the father said, with 'farcy glanders.' The ring-finger of the right hand, and the absorbents and axillary glands, became inflamed and painful; but whether after any wound or abrasion could not be satisfactory ascertained. The finger suppurated, and was opened; the aperture healed quickly, all the inflammation subsided, and in a few days he was considered free from complaint, except that his temper was irritable and his appetite somewhat impaired. But in a few days more he began to feel headach and pains in his limbs, particularly in the right-knee. On the following day (March 27), Mr. Parrott first saw him, and could detect no tenderness, swelling, hardness, nor trace of previous wound in the extremity originally affected. The pain in the knee was very severe, and aggravated by motion, but unattended by heat, swellling or redness. The pulse was quick and full: the tongue white and moist; the skin hot, and bedewed with sweat; the urine scanty, high-coloured, and turbid; the countenance anxious; the head painful, and there were signs of cerebral disturbance, together with extreme restlessness; the throat was sore, and covered with aphthous specks; the palpebræ were swollen, and the eyes much suffused. All these symptoms continued with unabated violence for eight or nine days; and in the mean time numerous soft swellings took place in the extremities, the small joints became painful and rather red, the right knee enormously swollen, the absorbents of the right arm knotted, painful, and in many points distinctly fluctuating. *A copious sero-mucous discharge, occasionally a little bloody, occurred from the eyes and nose, the schneiderian membrane was excessively red and nearly excoriated, and the eyes closed.* A pretty abundant eruption, very similar to small pox, but larger, and *hard*, appeared in different parts, but particularly in the neck. There was scarcely any sleep, but occasional delirium, and at length convulsions, and the patient expired on the 7th of April, while changing his linen. Unhealthy pus was found in the absorbents of the arm; the bursa of the knee contained a large quantity of pus, with flakes of coagulable lymph, a considerable abscess existed on the inner side of the knee-joint, and the periosteum was detached to the extent of between three or four inches. No other parts were examined." 192.

Dr. E. here introduces a description of acute glanders, as seen in the horse and ass, from a veterinary writer in the Dict. de Med. et Chir. Veter.; but this we need not quote. Sir Gilbert Blane has stated, that "the only examples hitherto ascertained" of infection being communicated from one species to another, are "the hydrophobia and cow-pox"—and Mr. Coleman declares that, as far as his experience goes, "the nostrils of the human subject are not susceptible of glandered ulceration or inflammation."

"On applying, however, at the Veterinary College, I was informed by Mr. Sewel that he had known *two* instances, and referred me to Mr. Travers's book on Constitutional Irritation for the particulars. They were cases of *chronic* glanders. The *first* happened in a veterinary student, who slightly injured his hand in examining the head of an ass, which had died of inoculated glanders. An ulcer ensued, and pain and inflammation of the superficial absorbents took place in a few days, and soon ceased. But the absorbents of the opposite arm became affected, and an abscess formed in it, and another at the lower part of the back. He became hectic, and at length suppuration occurred also in the lungs, in one of the kidneys, and successively in each knee-joint; after which he died." 195.

Mr. Colman inoculated an ass over the maxillary gland, with matter

from an abscess in the arm, and likewise rubbed the schneiderian membrane. Glanders and farcy were the result, and the animal died on the twelfth day. Precisely the same was done with another ass ; but no effect ensued, as the matter was not employed for several days, and had been left exposed to the air. He repeated the same experiment upon the same animal with fresh matter, and it perished of glanders and farcy upon the 14th day.

Dr. E. introduces quotations from veterinary writers to shew that glanders and farcy are the same disease, merely affecting different parts. Farcy always appears to terminate ultimately in glanders. A case is quoted from Mr. Travers's work on Constitutional Irritation, where the disease commenced in the form of farcy, and at length produced the symptoms of glanders. In order to make this article as complete as possible, we shall introduce this case here.

" Nimrod Lambert, a healthy hackney coachman, æt. 32, in January, 1822, infected a chap on the inside of the right thumb, by inserting it into the nostril of a glandered horse, to pull off a scab. He remembered to have afterwards wiped the thumb with a wisp of hay. In the space of six hours he was seized with violent pain and swelling of the thumb; it inflamed rapidly, upon which he applied a poultice to it, and took some salts. On the third day he was suddenly taken ill whilst driving, with cold shivers and giddiness, and states that he entirely lost the use of his limbs for seven hours. At this time his arm pained him much all the way up, and on the following day it was streaked with red lines, and excessively swollen. The arm-pit was also much swollen and tender. In the evening of the fourth day he was carried to Guy's Hospital, where he lay during twenty-four weeks. Superficial collections of matter formed successively in the course of the absorbents. The corresponding portions of the integument sloughed, leaving extensive ulcers which discharged an unhealthy and fetid matter. The glands at either angle of the lower jaw, and those of the groin became swollen, and he was much afflicted with pain between the eyes and down the nose, and exulcerations of the membrana narium, attended with discharge. During the progress of the local disease he had much constitutional illness. He totally lost his appetite, and was oppressed with nausea; complained of severe pains, with swimming in the head, and occasionally wandered in mind. He had also much pain through the whole course of the spine, especially in the region of the kidneys. His urine was thick, and discoloured, and fetid ; his motions were slimy and purulent. Expecting to die, he quitted the hospital, and lay at home the remainder of the twelvemonth, in a state of great emaciation, from the continued discharge of his sores, his inability to take food, and to procure any refreshing sleep, even with the assistance of opiates, which he took habitually. Despairing of aid from the profession, he applied to an experienced female practitioner, who administered a decoction of herbs, which he invariably vomited, but to which nevertheless he ascribed his recovery. At the end of the twelvemonth, his health gradually returned, the arm began to heal, and he became comparatively hearty, and resumed his occupation, though with much inconvenience, owing to the distortion of his hand by the retraction of the thumb and forefinger, in the cicatrization of a long line of abscesses, reaching to the middle of his upper arm. After six weeks, this cicatrix ulcerated afresh, and healed slowly. He is still subject to wandering pains in the head, both sides of the neck, loins, and groins : is not so strong and so fleshy as formerly, but has a good appetite. He has a great heaviness and disposition to sleep during the day, and at the end of two years and a half from the breaking out of the disease, considers his constitution broken, and despairs of being ever again the man he was." 201.

As two if not three cases of this disease are now recorded with Dr. E.'s

own observation, and another, in another place, our author thinks it not unreasonable to conclude that the disease is not of extreme rarity. This supposition will be the more readily assented to, when the following cases, recorded in Rust's Magazine of the Healing Art, are perused. They were furnished to Dr. E. by Dr. Kind, a German physician residing in London, and Mr. Jacob, an excellent German scholar, both of whom had witnessed the cases in St. Thomas's Hospital. We shall give these curious and interesting cases a place in our Journal.

"I. Martin Rennspiess, aged 34, an artillery soldier, employed particularly in the care of horses at a veterinary school, felt unwell, and complained of rheumatism, catarrh, colic pains and thirst, but did not lie by. At the end of six weeks, on getting up one day, Nov. 11th, 1821, he felt weak and giddy, and was unable to stand. Red streaks were observed on the cheeks, and a red spot upon the ala nasi. The latter by the next day had spread all over the nose, and head-ache and fever came on. Before night, a livid vesicle, (*ein blauschwarzes Blätterchen,*) appeared upon the ala, where the red spot had been, and gradually increased. The nose, eyelids, and soon the whole face, were swollen, hard, of a dingy red, and shining; and on the third day, he was taken to the Hospital.

A number of livid vesicles of the size of peas, and with *very hard* bases, were now seen on the nose; the integuments around were much indurated, the tongue loaded with yellow fur, the pulse 76 and weak, the spirits dejected, deglutition difficult, and there was great thirst.

On the 4th day, the swelling was increased, the tip of the nose gangrenous, the upper lip beset with vesicles, and *an offensive corrosive discharge was taking place from both nostrils.* Blood taken from the arm presented a firm buffy coat.

On the 5th day, the whole nose and upper lip were gangrenous, the swelling was greater, and there were pustules on the forehead like those already described (*neue Puslein von derselben Beschaffenheit wie die schon früher beschriebenen.*)

On the 6th, more pustules arose on the forehead; the nose and upper lip were black, cold, and senseless.

On the 7th, red spots, passing quickly into suppuration, arose on various parts, especially on the fore arms and legs. The nose was quite stopped up: the discharge from it mixed with blood, and so corrosive, as to destroy a portion of the slough of the upper lip. The breath stank.

On the 8th, the pustules throughout the body and extremities were more numerous and livid; the pulse was 140; nearly the whole face gangrenous; and in the evening he had a very offensive evacuation from the bowels, and soon afterwards expired.

Dr. Schilling seems satisfied that the disease arose from the contagion of a glandered horse, many of which wretched animals, kept for dissection and operations in the veterinary school, the patient had been looking after for some months, and had frequently, he said, washed out their nostrils.

Under the sternum is the seat of the thymus, and upon the tendinous portion of the left temporal muscle, a gelatinous yellow mass, similar to what is often met with in the cellular membrane of anasarcous persons, was found. 'The pericranium, especially of the frontal was sown, as it were, with yellow pustules (tubercles?) of the size of millet seeds, and the bones below were sound.' 'The bones of the nose were decidedly carious, while the others of the face were healthy. Under every part of the skin where the earliest pustules took place, the cellular membrane was changed to a gelatinous mass, like that already mentioned. Pustules (tubercles?) were found even in the substance of the muscles, projecting, as it were, from their fibres, and containing a puriform lymph, but not clustered like those on the head. The fibres around were half liquified.'

As a postcript, the editor relates the following case, by Dr. Weiss, Kreis-Chirurgus at Neumarkt.

II. Gottfred Kliesch, aged 19, of delicate constitution the son of poor parents, had always worked in various places, but latterly been employed in a farmer's stables at Bischdorf. According to the father's very imperfect account, he had frequently had eruptions, and frequently glandular swellings in his neck, many of which had suppurated. Whether any slight ulceration still existed on his face or neck, is not said. He had been vaccinated with success.

For several weeks he had complained, the father said, of pain in the head and back, weariness, and weakness of the limbs, loss of appetite, and dirturbed sleep, all which he ascribed to lifting heavy sacks of corn; but continued at his occupation, a part of which consisted in looking after a *glandered horse*, which was with an ox in a separate stable. The stench in cleaning out the manger, was such as continually to make him sick, and at last he took to his bed. He was sent to his parents Oct. 12th, that he might be taken better care of, and got worse daily till the 24th, when Dr. Weiss was requested to see him.

'I found him,' says this gentleman, 'in a miserable bed; although the room was filled with the smoke of juniper berries, there was a bad smell around the patient. He lay emaciated, in a mild delirium, his eyes dull and sunk, his nostrils somewhat extended, their inner lining, as far as the outer edge, covered with superficial ulcerations, some of which also were seen on the lips; the tongue and teeth were encrusted with yellow sordes. *From the mouth and nostrils there was an abundant yellow puriform discharge;* and all the glands beneath the lower jaw were swollen. All over the body, but especially on the lower extremities, were pustules, healed in some places, ulcerated in others and foul. The genitals were healthy, and the inguinal glands moderately enlarged. His strength was very prostrate; he answered me rationally, but in so weak a voice as scarcely to be understood; respiration was laborious and difficult; the breath very offensive; the abdomen rather tumid, but not tender. Black liquid blood, extremely offensive, was discharged involuntarily from his bowels; the skin was dry and hot; the pulse frequent and weak. He died the next day.'" 211.

Rust subjoins his conviction that both these patients died of the glanders caught from the diseased horses which he took care of.

In the 17th volume of the same work (1824) is the case of one Martin Tesmer, aged 25, who, from the 15th to the 27th July, 1823, suffered from pain in his limbs, side, and head, with thirst, loss of appetite, restlessness, and a pricking sensation at the tip of the nose. About the 29th inflammation of the left cheek, the nose, and upper lip, came on. There was considerable pyrexia. Aug. 1st. The inflammation had spread, and the extremity of the nose appeared to be suppurating. On careful inquiry, the lad acknowledged that he had had the care of two diseased horses, one of whom was affected with great discharge from the nostrils. This discharge he had been sprinkled with while giving the horse some medicine.

"On the 3d, the end of the nose was covered with a hard, painful, gangrenous scab; several pustules as large as peas and filled with yellowish fluid (phlyzaceous), arose around it, and on the upper lip: the whole face was swollen, and the inside of the nose inflamed. On the 4th, the entire face, and inside of the mouth, were inflamed and swollen, nearly half the nose destroyed, and the rest covered by a gangrenous scab. There were more pustules on the cheeks, some discharging an acrid ichor: the fever was much more intense. Blood taken from the arm on the 5th day, showed a strong inflammatory buff. On the 6th day,

the swelling and destruction of the face proceeded, and even the gums and tongue were implicated: pustules, like those of the face, arose on the chest and extremities.

On the 7th, *a copious stinking ichor proceeded from the nose and mouth;* the gangrene extended; more pustules appeared upon the forehead, the angle of the lower jaw, and the body. The pulse was 130, and small; there was delirium, and colliquative sweats.

On the 8th, the symptoms were all greatly increased; the pulse could not be counted, and death took place. Previously and subsequently to his decease, the stench was excessive; and on this account the body could not be inspected. The horse was examined, and found to have a swelling in the glands of the neck, with a copious mucous and purulent discharge from the nose. When killed, the right lung was full of pus, and the left of abscesses and *tubercles*, although no disease was visible in the mucous membranes of the nostrils." 213.

In the second part of the 14th volume, is an account, by Dr. Tarozzi, of Ostiano, of eleven persons affected, in 1818, in a similar manner, and of whom all but one died, after visiting, with about 35 others, an ill-ventilated stable, 20 feet square, containing three cows and ten horses, one of which had laboured under an offensive discharge from the nostrils for a twelvemonth, and none of which had left the stables for three months.

"Violent pyrexia, pains, spasms, boils, and at last a large carbuncle, generally characterised the first stage; gangrenous vesicles and typhus were the chief features of the second. These were not the precise symptoms observed in the preceding cases; and as the parish priest, who closely attended on all the patients, also caught the disease, and as a discharge from the nostrils is not stated to have taken place in any one instance, and the accounts are in many respects defective, I dare not give an opinion that this disease, any more than that of the proprietor of the horse which infected Tesmer, was really glanders. It might have been an affection similar to a carbuncular epidemic which seemed to be derived from brutes—from skinning sheep and oxen that had died of *blutseuche* or *milz-brand*, at Merseburg, in 1822, and described in the first part of the same volume; to the cases of butchers and others affected with gangrenous erysipelas, pustules, carbuncle, &c. apparently from contact, even without abrasion, with the blood of diseased oxen, related by M. Morand; to the disease described by MM. Enaux and Chaussier, under the title of *Pustule Maligne;* and to a disease which proved fatal to two men whose hands, though sound, and washed four minutes afterwards, were wetted, in the performance of venesection, with the blood of a cow labouring under *milz-brand*, and in whom the chief local affection was peritoneal inflammation and effusion." 215.

We have thus given a long account of the longest paper in the recent volume of the Medico-Chirurgical Transactions; and placed all the facts fairly before our readers. We could add, from our own experience, some curious particulars respecting diseases that have been caught from domestic animals; but this article has extended to such a length that we are compelled to bring it to a close.

XII.

A TREATISE ON THE VENEREAL DISEASES OF THE EYE. By *William Lawrence*, F.R.S., &c. &c.

[Second and concluding Article.]

IN a former article we considered the gonorrhœal diseases of the eye, and the present will be dedicated to its syphilitic affections. These comprise, 1st: syphilitic iritis; and 2dly, syphilitic ulceration of the eye-lids.

1. SYPHILITIC IRITIS; IRITIS SYPHILITICA.

The iris is liable to inflammation from various causes, of which syphilis is perhaps the most frequent. A description of the origin, progress, and consequences of the syphlilitic form will nearly serve for those of all the rest.

The membrane lining the chambers of the aqueous humour resembles that of the serous cavities, and in it, as in them, inflammation is attended by effusion of albuminous fluid or coagulating lymph. The structure and situation of the texture affected will account for our not observing the four ordinary concomitants of inflammation, swelling, redness, heat, and pain. But effusion is a common occurrence, and is indiscriminately known as coagulable lymph. It changes the colour and appearance of the iris, impairs and destroys its motions, occasions adhesions to the surrounding parts, alters the form and size of the pupil, and produces more or less destruction of vision. Iritis is an adhesive inflammation. It is attended with enlargement of the vessels of the sclerotic, and consequently by preternatural redness of the eye, increased sensibility to light, and lachrymal discharge. Such are the general characters of iritis. We next procced to consider the symptoms more in detail. And first of—

Change of Colour in the Iris. This is one of its most striking characters. A light-coloured iris becomes, under inflammation, yellowish or greenish, occasionally distinctly yellow; if the eye be blue, it sometimes assumes a bright green tint. Generally the tint, of whatever colour, is of a dull and muddy cast, and darker than natural. A dark iris, when inflamed, presents a reddish tinge. There is a complete loss of the natural brilliancy of the iris, it grows dull and dark, and its beautiful fibrous arrangement is either confused or entirely lost. These changes commence in the pupillary margin. In the early stage the very edge of the pupil only may be affected, the internal circle is then altered in colour and thickened, and afterwards the external or ciliary edge is implicated. The alteration of colour is produced by effusion into the texture of the organ, and is such as would arise from blending the yellowish or brownish colour of the lymph with the natural hue of the iris.

Various Appearances of the Effused Lymph. The deposition of lymph may be variously modified: 1st. It may be effused into the iris, producing the changes of colour alluded to. 2dly. It may form a thin layer, covering a larger or smaller surface. Thus, the edge of the pupil first, and subse-

queutly the lesser circle, may assume a reddish brown or rusty colour in the beginning of the affection. The discoloured part has a rough villous appearance, and on looking at it closely, particularly sideways, we generally find a slight elevation and irregularity of surface produced by this new deposit. Sometimes the stratum of lymph has a light yellowish brown or ochrey tint, and a loose villous texture, rising into obviously prominent masses. The rusty colour is most common, especially in blue irides; the other is seen in the grey or orange-grey. This deposit is usually confined to the inner circle, but the outer is generally more or less discoloured and dull. 3dly. The lymph may be effused in distinct masses or tubercles, of a yellowish or reddish brown colour, sometimes of a bright red. They vary in size from that of a pin's head to that of a split-pea. Often there is only one; there may be two, or more. They may be deposited on the edge of the pupil, or in any part of the anterior surface of the iris. If the inflammation is very active or the treatment inefficient, the lymph is sometimes so abundant as nearly to fill the anterior chamber, when it has a light dirty yellowish colour, and often a loose semi-transparent texture. 4thly. Under violent inflammation coagula of blood are sometimes mixed with the tubercular masses of lymph. Mr. L. has seen this when the inflammation was not of the most violent kind. 5thly. Lymph may be poured out from the margin of the pupil or uvea, so as to agglutinate them partially or generally to the capsule of the crystalline. A mass of lymph sometimes fills the pupil; more frequently a thin greyish web stretches across the opening, which is rendered cloudy. Lymph may be effused in considerable quantity into the posterior chamber, and either make its way through the pupil into the anterior chamber, or cause a bulging of the sclerotica, penetrate that membrane, and form a tumour under the conjunctiva. The swelling in these cases has sometimes a yellowish appearance on its most prominent part, from which, with the intense redness and violent pain in the eye, suppuration of the globe has been suspected, and the part punctured. No pus has escaped. Mr. L. thinks he may assert that suppuration never takes place in syphilitic iritis, the inflammation being always adhesive, the changes produced by the effusion of lymph.

Mr. Lawrence has never seen hypopion in this disease: nor those bright yellow convex masses which burst after a time, allowing the escape of a yellow matter, which falls down in the anterior chamber. The latter have been considered as peculiar to idiopathic iritis, but our author has seen them in two or three instances in which in a syphilitic origin was dubious.

The effusion into the texture of the iris, producing the general change in its appearance, and the reddish brown discoloration of its inner circle with thickening of the pupillary margin, are generally the first alterations observed; they may take place separately, but are usually conjoined. As the inflammation proceeds the tubercular masses appear. In the most violent degree, large effusion takes place into the anterior, or posterior chamber, and the pupil. As the several modifications of effusion depend on the degree of inflammation, they may be variously combined together, according to the stage of the inflammation and effects of the measures adopted. Occasionally, however, the inflammation, although violent and of long standing, is characterized by general discoloration alone, or with the addition of a thin stratum of lymph on the inner circle of the iris. In some instances the

tubercular disposition of lymph takes place with hardly any other appreciable alteration.

Motions of the Iris and State of the Pupil. "The motions of the iris must be seriously impaired by the changes just described, more particularly by the interstitial effusion of lymph. It moves sluggishly at the commencement of the inflammation; and when effusion has taken place, its movements are entirely suspended, the preternatural connexions by adhesion concurring with the change of structure in producing this effect. The pupil, consequently, cannot exhibit the ordinary variations in size; it is contracted, and it becomes smaller and smaller in the progress of the affection. At the same time the effusions of lymph and the adhesions change the figure of the opening, rendering it angular, and often extremely irregular. Together with other changes, the pupil sometimes undergoes an alteration in situation, being apparently drawn upwards and inwards, or towards the root of the nose. It may deviate in other directions. The margin of the aperture is thickened, and has a villous or spongy appearance in the beginning of the disease, presenting a strong contrast to the thin, sharp, and well defined edge which natuarally belongs to it. The effusion of lymph into the aperture, which has been already noticed, destroys its clear black colour, and gives it a dull cloudy appearance." 142.

Increased Redness of the Eye. Round the cornea is a red band, deeper coloured in front, and gradually shaded off behind, the circumference of the globe being comparatively clear. In the commencement of the affection, the sclerotica, as in all other cases in which it is inflamed, exhibits a pale pink redness, and the vascular trunks lying on the membrane are seen of a deeper pink tint under the unaltered conjunctiva. They advance in nearly straight lines from the circumference of the globe, ramifying towards the front, and are lost in the pink zone. The redness of the sclerotica and distention of its trunks increase as the affection proceeds. The vessels of the conjunctiva soon become partially enlarged towards the anterior part of the eye, and are distinguished by their scarlet colour; their fine close ramifications combine with the pink redness of the sclerotica to form the vascular zone round the cornea. The minute vessels terminate abruptly at the edge of the cornea, under which they probably pass to the iris. The zone varies in breadth; it is of a deep vivid red in acute iritis when fully developed; and in iritis of the most violent kind all the external vessels of the globe are equally affected, giving to it an uniform fiery redness. The red zone lasts as long as the inflammation of the iris, and is connected with it in its origin and decline. The whole iris is usually inflamed, but only one point may be so; and then the redness of the sclerotica is confined to the point opposite to it. In general inflammation of the iris, one part may be most acutely inflamed, and opposite that the external redness is greatest.

State of the Cornea and Aqueous Humour. From the vascular connexions between the sclerotica, cornea, and iris, a change might be anticipated in the state of the cornea from inflammation of the latter. General haziness occurs at first; nebulous opacity comes on when the inflammation is violent and long-continued. In most cases the cornea generally is affected; but partial opacity may exist with the general haziness or nebula. Rarely, there is ulceration of the cornea. These corneal affections add to the imperfection of sight caused by the changes in the pupil. No change in the state of the

aqueous humour is discerned whilst the cornea remains clear; none can be discerned when the cornea is hazy or opaque.

Intolerance of Light and Pain. There is generally some, and often considerable intolerance of light in the beginning, with lachrymation on exposure to it. These symptoms probably depend on the implication of the sclerotica, and they continue, although the quantity of light admitted into the eye is constantly diminishing in consequence of the changes produced in the pupil and cornea. There is generally more or less pain from the commencement, the degree varying according to the acuteness of the attack. It may be accompanied with burning sensation and tension, deep seated in the globe and orbit, extending to the head, and preventing rest entirely. On the other hand, the pain may be slight, even with considerable effusion of lymph and loss of sight. Patients often complain of great pain in the temple, brow, or cheek, as if it were seated in the bone. The pain is chiefly at night, and when present in the day it is exasperated at night time. Dimness of sight occurs in the commencement of iritis, and, as the changes in the pupil and cornea occur, vision becomes more imperfect or altogether destroyed.

General Symptoms. The constitutional disturbance is very various. Acute iritis may be attended with the symptoms of inflammatory fever, or the symptoms may be slight, nay, entirely wanting.

"*Progress and Extension of the Inflammation.* If the inflammation, having attained its full development, should continue, the iris swells, or appears to swell; that is, it approaches towards the cornea, becoming convex in front, diminishing the anterior chamber, and sometimes having its surface puckered and irregular. Is this an actual swelling of the iris, real thickening of the part from interstitial deposition? or mere protrusion by the swelling of parts behind, by the effusion of lymph, or by aqueous secretion? Dissection has not yet elucidated these questions.

If the progress of the affection be not checked, it does not remain limited to its original seat in the iris. At first it appears on the very border of the pupil; then shews itself on the inner circle; and subsequently extends to the outer circle, presenting the combination of symptoms already described. Supposing it to go on without interruption, it passes from the ciliary circumference of the iris to the corpus ciliare, the choroid coat and retina, with increase of pain and fever, and ultimately with irrecoverable loss of vision, from change of structure in the retina. At the same time, the mischief is propagated forwards; the cornea becomes more opake, the conjunctiva more inflamed, and great external redness is added to all the other symptoms, so that the case, which was at first simple iritis, becomes ultimately ophthalmitis, or inflammation involving the external and internal tunics generally.

The question naturally occurs, whether the inflammation, when thus propagated to the posterior tunics, presents in them the same characters as in its original seat; that is, whether it is attended by effusion of lymph? I have never had an opportunity of dissecting an eye in this state of disease, nor are any such dissections recorded. The escape of lymph through the sclerotica, which has been already mentioned, and the bulging of the globe at some distance behind the cornea, in cases where it is disorganized by this inflammation, which certainly is not owing to suppuration, would lead us to suppose that the question ought to be answered in the affirmative. Sometimes the internal tunics suffer generally from the beginning; and vision is impaired, although the pupil may remain clear. The term iritis, implying that disease is confined to one texture, is not properly applied to such cases." 150.

Acute and Chronic Iritis. These are loose terms. Serious mischief may occur in a few days, or weeks may elapse without it. Extension of inflammation to the posterior tunics is most to be dreaded in acute iritis, but the chronic form is not exempt from this danger. The milder degree of inflammation may creep on to the ciliary body and adjacent parts, producing in them changes of structure capable of injuring or destroying sight.

Effects of Iritis. When the inflammation is at an end, under favourable circumstances, the iris may be completely restored, whether it has been simply discoloured, or effusion of lymph has taken place either in a thin stratum or tubercular masses.

Adhesions of the Pupil. The lymph thrown out in iritis speedily becomes organized, producing new formations of a permanent character.

"Thus, when the inner circle of the inflamed iris has regained its natural appearance by the progress of absorption, the edge of the pupil is found preternaturally fixed to the crystalline capsule. It may be closely attached at one or more points, the rest of the circle being free. More commonly the connexion is effected by slender threads, long enough to allow some motion; there may be many of these fringing the whole opening, or only one. Such adhesions are dark coloured; that is, they are of the same colour as the edge of the pupil or the uvea, partaking, like other adventitious formations, of the nature of the surface which produced them. Under suitable treatment, in an early stage, adhesions of the pupil are sometimes detached, leaving behind, at least in some instances, black marks on the capsule, which I believe are permanent. These marks escape notice in consequence of the blackness of the pupil; they are, however, sometimes detected on close examination with a strong light on the eye. I have seen a complete circular series of such marks, which I discovered while accidentally examining the eye with the sun shining upon it. The patient had laboured under iritis; and the pupil, which had been fixed to the capsule in its whole circumference, was completely liberated by the means employed. A tubercle of lymph effused on the edge of the pupil will produce a broader adhesion, fixing, perhaps, one third or one fourth of the circle. The changes now described must necessarily affect the figure and motions of the pupil: they often render it very irregular, and impair or destroy its motions. Mere alterations of figure are not injurious to vision; which is just as good with the most irregularly shaped pupil as with a circular one; and we often see perfect vision with great and permanent contraction of this aperture. It must be understood, of course, that the retina is uninjured, and that the pupil, however irregular or small, is clear." 155.

Change of Texture, and Colour in the Iris. If much general effusion has taken place and has proceeded uncontrolled for some weeks, the texture of the iris is permanently changed, being altered in colour, diminished in lustre, and confused in its fibrous texture. Sometimes it is marked with small dark specks; sometimes it is of a leaden hue. These changes concur with the adhesions of the pupil in lessening or destroying the motions of the part.

Adventitious Membrane in the Pupil. If the lymph thrown out on the crystalline capsule be not soon absorbed, it is organized and forms an opaque adventitious membrane adherent to the capsule and the pupil, and

corresponding in dimension to the size of the pupil at the time of the effusion. The opacity is greatest in the centre. In the contracted pupil it fills the whole aperture, but when the edge of the iris is withdrawn, it is surrounded partially or entirely by a clear black margin, and the iris is attached to it by adhesions either close or in the form of short black threads. These adhesions sometimes divide the clear part of the pupil into small roundish or irregular apertures, when the pupil does not act under the influence of light, and the application of belladonna is usually necessary. If the effusion has only partially occupied the pupil and margin of the iris, the adventitious membrane will be found towards one side instead of the centre, the edge of the pupil being fixed to it, and thus drawn out of its regular line while the rest of the opening is natural. This state is attended with more or less injury to sight, but the patient may read a little by means of belladonna.

"*Closure of the Pupil.*" When large effusion has taken place into the posterior chamber, it is organised into a dense opaque substance, to which the entire circumference of the pupil is closely fixed, the opening itself being greatly contracted, or actually shut, and generally removed more or less from the centre of the iris. By this complete closure of the pupil, (*atresia iridis perfecta,*) the communication between the two chambers is destroyed, and the passage of light into the eye, almost entirely intercepted, with corresponding loss of sight. By means of the adventitious membrane thus produced, the uvea may be rendered generally adherent to the crystalline capsule; and there may be a large anterior chamber; or the iris may have been previously pushed forwards and in contact with the cornea, so as to destroy the anterior chamber.

Atrophy of the Globe, and Fluidity of the Vitreous Humour. When large effusion has occurred into both chambers, and when lymph has been deposited behind the iris in such quantity as to cause bulging of the sclerotica, or to escape through that membrane and raise the conjunctiva into a swelling, it will be completely removed by absorption, when the inflammation has ceased. But the internal parts of the globe are so altered in structure, that it becomes flaccid, and reduced in size (*atrophia bulbi*). This change sometimes takes place after complete closure of the pupil. A fluid state of the vitreous humour (*synchisis*) and consequent softness of the globe may take place after acute syphilitic iritis of long standing, without shrinking in size or atrophy." 158.

Impaired Vision. When the inflammation has extended to the posterior tunics, it often leaves behind it impaired vision in various degrees, although it should have been arrested by proper treatment. This may take place in chronic cases as well as in acute. After an apparent cure, the eye remains preternaturally sensible on exposure to cold or damp, or after exertion. This is chiefly observed when the inflammation has been considerable, or has lasted long from neglect or injudicious treatment. Repeated and troublesome relapses may be the consequence.

Diagnosis. The tubercular depositions of lymph, the reddish-brown discoloration of the iris on its inner circle, the nocturnal exacerbations of the pain, the angular disfiguration of the pupil and its displacement towards the root of the nose, together with the previous existence of syphilis, and in most instances the concomitant existence of other syphilitic symptoms clearly distinguish the venereal iritis. The local symptoms alone are not always sufficient, for we sometimes see merely a general discoloration of

the part, such as might occur in idiopathic or arthritic iritis. The age of the patient and the previous and concomitant circumstances, tend to clear the difficulty. In idiopathic iritis there is either no distinct deposition, or it occurs as a bright yellow elevation out of the texture of the part, which increases to a certain size, then breaks and allows the escape of a yellow matter, which sinks to the bottom of the anterior chamber. Such abscesses are not seen in syphilitic iritis. In the arthritic species lymph is effused from the margin of the pupils, but not deposited in a distinct form, and the adhesions are generally white. Both in the idiopathic and arthritic iritis the pupil generally retains its circular figure and central position. Mr. Lawrence, however, has seen the effusion of reddish, brownish, or brownish-yellow lymph on the iris in several instances, both of children and infants, in whom no suspicion of syphilis could be entertained.

Causes. We must look on syphilitic iritis as a secondary symptom, and, until we can explain the occurrences of other secondary symptoms, we must remain in the same darkness respecting the nature of the connexion of this with the primary disease. It usually appears without any assignable cause, although cold, wet and other external influences may excite it in those who are predisposed to it.

Other Concomitant Syphilitic Diseases. Sometimes it occurs alone, but usually it is accompanied with such other symptoms as eruptions, papular, scaly, tubercular, and pustular ; ulceration of the throat, and mouth ; pains of the limbs ; and swellings of the periosteum. As it belongs to the earlier class of secondary syphilitic affections, it sometimes shows itself, like the other symptoms of that class, before the primary disorder is cured.

Syphilitic Iritis in Infants. This is rarely seen ; by Mr. Lawrence only twice. In one case there were excoriations and ulcerations round the anus ; the iris was dull and dark-coloured ; the pupil slightly contracted ; and there was some redness in the sclerotica. In the other case, the father having had primary venereal sores before marriage, the child, in a few weeks after birth, had an eruption all over the body, wasted, and seemed on the point of dying. It got well under the use of mercury in very small quantities. In a few weeks more, severe inflammation of the eyes came on, mercury was employed, the inflammation was arrested, but the child remained blind. Both pupils were fixed and moderately contracted ; an opaque body, not a cataract, was seen behind one ; the other was clear ; but both eyes were blind. Mr. Lawrence has seen syphilitic inflammation of the internal tunics occurring as a secondary symptom in conjunction with scaly eruption, after the infection of a chap on the hand by the contact of a discharge from a sore in delivery.

Is Iritis caused by the use of Mercury ? "An opinion has partially prevailed that the use of mercury is capable of producing iritis. Some have considered that the syphilitic iritis, as well as other secondary symptons, either are rendered more frequent and severe by the employment of this remedy, or owe their very existence to it ; while others have spoken of iritis as generally being caused by it. I have seen no instance of iritis, of whatever kind in which there has appeared to me any reason for ascribing the occurrence of the complaint to this cause. In nine of the cases related in this paper, iritis came on where no

mercury had been taken previously to its appearance; and in some of them the complaint was severe, and produced consequences injurious to vision: in others mercury had been administered only in small quantity, and the mouth had not been made sore; and there is not one in the whole list in which the remedy had either been employed for a long time, or affected the system severely. Iritis occurred in some of the cases which had been treated by Mr. Rose and Dr. John Thompson without mercury. Dr. Esktröm, of Stockholm, informed me that he had seen many similar instances in the patients of an institution where the use of mercury in syphilis had been entirely abandoned for a long time. Iritis took place in a woman who had contracted syphilis from suckling a diseased infant, and had taken no mercury." 166.

Prognosis. This is favourable when the affection is recent and confined to the iris; indeed we need not fear considerable changes when this only is affected, for very considerable effusion may be removed. We must examine carefully whether the posterior tunics are involved. The changes in the cornea and pupil may impair sight considerably, and yet it may be ultimately restored. Nay, even considerable impairment of vision is sometimes found where the cornea is clear, and the pupil not visibly obstructed, and yet the sense is recovered, so that even affection of the retina is not necessarily a ground of unfavourable prognosis. When the whole iris is changed in colour, with considerable contraction of the pupil and an opaque substance in it, with intense external redness, great and deep-seated pain, and complete extinction of sight; the case is hopeless. Mr. L. has not seen vision recovered, when there is large effusion behind the iris, particularly if it has occasioned bulging of the sclerotica, or made its way through it. Considerable imperfection of sight may be removed if the affection is recent, but cases differ so much that we can hardly speak of definite periods. We may fairly expect to arrest the inflammation and remove its effects, when the iritis has lasted a fortnight or three weeks. In one case active inflammation had gone on for six weeks, yet the recovery of sight was nearly perfect. We must take a combined view of the activity and duration of the inflammation before we decide on the probable termination. We often effect much good in cases that appeared desperate.

Treatment. We have three principal objects in view: to arrest the inflammation, prevent the further effusion of lymph and promote the absorption of that already poured out, and to prevent the dilatation of the pupil. These may be accomplished by antiphlogistic measures, the employment of mercury, and the use of belladonna.

Whenever the inflammation is acute, with constitutional disturbance, when we fear the extension of the inflammation to the posterior tunics, and more particularly if such has occurred, we must bleed generally and locally, purge, give salines with antimony and aperients, keep the body and the eye at rest, in short use the items of the antiphlogistic treatment. When the disorder is less violent, cupping or leeching will suffice; the latter may be advantageously employed in many instances which are not of the most acute kind. Whenever there is feverishness, particularly if the pulse is full and strong, general bleeding may be had recourse to, but the absence of such symptoms does not contra-indicate the practice. If the local complaint be serious and threaten mischief, the treatment may properly begin with venesection, if nothing forbids its employment. Neither should we hesitate

to repeat the bleeding whenever the state of the part of the system calls for it.

Local applications are of comparatively little consequence; the patient's feelings must be our guide as to the use of warm or cold. Blisters are not applicable to the acute stage of the disease, especially if applied near the eye.

We now arrive at a very important subject for consideration, the exhibition of mercury. Antiphlogistic measures may have arrested the acute symptoms of the inflammation, but still the action of the capillary vessels too frequently continues, the effusion of lymph goes on, and destructive changes are in progress. We must give mercury, not as a purge, not in alterative doses, but so as to put the system under its influence. It then cuts short the inflammation, and stops the effusion of lymph, when that already thrown out will be absorbed. The redness of the eye diminishes, and sudden relief is felt; the lymph begins to lessen and is soon removed; the colour of the iris is restored last. The red zone round the cornea looks pale and soon disappears. Mercury to do this must be used freely. It should be commenced after the abstraction of blood locally or generally and after purging. The best form is, two, three, or four grains of calomel, to one-fourth, one-third, or half a grain of opium every eight, six, or in urgent cases every four hours. The influence of the remedy will soon be perceived. Under particular circumstances blue pill, the hyd. c. cret., or mercurial friction may be employed instead of the calomel. In respect to the extent to which mercury should be carried, and the length of time that it should be continued, Mr. Lawrence observes that the more powerful its action on the system, the more effectual is its control over the disease. Sometimes a mild course may fail, when a more powerful influence will quickly do the business. Full salivation quickly produced cuts short recent disease, as by a charm. The remedy may then be suspended, and its effects allowed to subside slowly, which will take two or three weeks; it will not be necessary to give more mercury. In general, indeed, it is sufficient to make it sensible in the mouth. In cases of longer standing, we must persevere until the lymph is absorbed, until the natural colour of the iris returns, the red zone round the cornea is gone, and vision is restored. This will require four, six, in some instances eight weeks. A longer time is usually required in relapses and in second than in first attacks.

It may naturally be asked, if iritis absolutely requires the exhibition of mercury? It certainly does not. It may run its course without any treatment, but then it produces effects more or less injurious to vision. Again, iritis may be controlled by common antiphlogistic means, but in general they are not to be depended on in arresting the effusion of lymph. Although the inflammation may not be violent, the pupil will contract, and lymph be thrown out, and although the disease may be checked and subside, leaving the organ apparently recovered, adhesions and adventitious membranes will permanently injure vision.

"During the time that I was surgeon to the London Ophthalmic Infirmary, I frequently saw patients who had been treated by common means, and in whom general disorganization of the iris, contracted, closed or partially adherent pupil, obstruction of that aperture by adventitious organizations, and loss or serious injury of sight, had resulted from inflammations that might have been checked by mercury, without leaving any permanent ill

consequence. I may observe that iritis, of whatever kinds, is an affection easily managed: that it rarely fails to yield to proper treatment, even when the case has been originally neglected; and that the serious effects just detailed are chargeable to injudicious management only. A strong contrast to such cases is afforded by those, in which mercury is properly administered; the cure in the latter being rapid and complete, and the occurrence of ptyalism being in general attended with the most decided improvement in all the symptoms. In this latter respect the action of mercury exerts a much more marked influence over the complaint than the loss of blood. These points are fully illustrated by Cases VII. to X., XII., XIV. to XVII., and XIX. to XXVIII. In these and in many other instances which have come under my observation, the continued progress of the inflammation until the system was brought under the influence of mercury, the immediate cessation of the pain and the corresponding diminution of all the other symptoms as soon as the mercurial influence was established, have afforded the most unequivocal proof of the great power which the remedy possesses over the complaint." 178.

In viewing iritis and considering its treatment, the effusion of lymph and the importance of preventing or removing it, form a prominent object of attention. Similar effusions and interstitial depositions in the serous membranes are productive of comparatively little evil. The effects of mercury are most marked, after active antiphlogistic treatment has failed. There are two parties: one supporting the antiphlogistic treatment alone; the other, mercury alone. Mr. Lawrence, as we have seen already, sides with neither. The result of his experience is, that the successive or combined employment of antiphlogistic means and mercury give the quickest relief and effect the most perfect cure. Mercury is certainly used with the greatest effect in the active period of the inflammation and acute form of the complaint. But it is as certainly given with advantage occasionally after the active period is gone by, when only the apparently permanent effects of inflammation remain, organized adhesions, and considerable imperfection of sight. In such cases it has essentially improved vision, and therefore it is best to give it a trial. As the circumstances are not urgent, the mercurial influence may be slowly produced, but the effect should be kept up for some weeks. As local applications, a solution of the oxymuriate of mercury and the red precipitate ointment have been used. They are inadmissible in the acute stage, and of no use, as mercurials, in the chronic. But when patients complain of severe pain over the orbit at night, six grains of the mercurial ointment, with two of finely powdered opium, well rubbed in before the time at which the nocturnal pain is expected to recur, will generally prevent it. Mercurial frictions on the brow do not, however, arrest the inflammation as the internal use of the remedy does.

The third object which engages our attention is the artificial dilatation of the pupil, in order to preserve its natural figure and dimensions. Certain vegetables, by their action on the iris, produce this curious effect. The atropa belladonna, hyosciamus niger, lauro-cerasus, and datura stramonium, possess the power in question. The usual mode of proceeding is to rub the moistened extract on the brow, or drop a solution of it into the eye. The latter is the most efficacious; a scruple of the extract being rubbed down with an ounce of distilled water, the fluid filtered through linen, and two or three drops being introduced between the lids. Dr. Reisinger prefers a

solution of the hyosciamine or atropia, the active narcotic principles obtained from the plants enumerated, to the other methods of dilating the pupil. He uses a solution of one grain of hyosciamine to a drachm of distilled water. In an old woman the pupil remained dilated for seven days after its application. When the organ is inflamed and painful, the moistened extract rubbed on the brow should be employed; under other circumstances the solution should be dropped into the eye. If we wish to produce the greatest influence in the quickest manner, we should employ both methods at the same time. The immediate effect of these narcotics is enlargement of the pupil, or, in other words, contraction of the iris, which loses its power of motion, and is said to be paralysed. The effect is usually produced in half an hour, and lasts for several hours, or even some days. It is not uniform in all individuals, being greater in proportion to the healthy state of the eye. A temporary amaurosis is produced by it, but no permanent injury to vision ensues. In this country belladonna is almost exclusively employed, and what is remarkable, its influence on the iris is not in the least degree diminished by use. Patients occasionally complain of undefined uneasiness after its application, but Mr. L. doubts how far this is justly attributable to it.

Adhesions of the pupil prevent its dilatation more or less completely according to their number and nature. A general and close attachment precludes it altogether, whilst partial adhesions only affect the part in which they are situated, and allow of dilatation elsewhere. When the adhesions are through the medium of long and slender threads, a limited degree of motion is allowed. Belladonna and other narcotics are capable of dilating the pupil in many instances where the iris is no longer affected by variations in the quantity of light. Its permanent condensation by effusion of lymph, under violent and uncontrolled inflammation, renders it altogether incapable of motion, and incapable of being acted on by narcotics. The artificial dilatation of the pupil must be combined with the use of mercury, in order to prevent the contraction to which there is such a tendency in iritis, for belladonna will not answer when the iris is highly inflamed. But the application, if used to the brow, does no harm, and may even be advantageous by preventing further contraction. If adhesions have already taken place, belladonna will, if the effusion be recent, elongate them, and sometimes separate them entirely, so as to liberate the pupillary margin. But to do this, it is necessary that the case be recent, and a full mercurial action be combined with the belladonna. Under these circumstances Mr. L. has seen the whole edge of the pupil detached from the capsule of the leds to which it had adhered, and the capsule has exhibited a circular arrangement of black spots, marking the number and situation of the adhesions. These marks are of dark colour, derived from the uvea, and, as far as Mr. Lawrence has seen, they are permanent.

If we cannot explain the exact modus operandi of mercury in iritis, it need not create astonishment. After all the experience of three centuries in syphilis the powers and effects of mercury are disputed. Certain it is, the mercurial influence is beneficial in the idiopathic, as well as in the syphilitic iritis, although its full influence is less decided. In the rheumatic form Mr. L. has employed it with decided advantage, and its more moderate employment in alterative doses is generally useful.

The transparency of the cornea renders the case of iritis particularly well adapted for studying the effects of mercury. We can observe the alterations effected by disease and by our treatment. We observe that mercury puts a stop to that increased action of the capillary vessels on which the effusion of lymph depends. It may readily be imagined that this fact must have attracted the notice of all who have watched in a philosophic manner the diseases of the eye; and it may be easily conceived, that the idea of employing mercury in other inflammations tending to the production of coagulated lymph would present itself to the minds of reflecting men. It has done so, and inflammation of the retina, whether acute or chronic; inflammation of the serous membranes, as the pericardium, pleura, and peritoneum; nay, according to Mr. Lawrence, phlegmonous inflammation of the thigh, yield more or less to the influence of mercury, when ordinary antiphlogistic treatment will fail. Whether it promotes absorption, except by arresting inflammation, appears to Mr. L. problematical. In fine the powers of mercury in inflammation, and that of more tissues than the serous, are so great and so striking, that we cannot do more than glance at the subject at present. How much might be written on the use and abuse of the mineral now.

Mr. Charmichael, of Dublin, has lately recommended the employment of turpentine in iritis in cases where mercury is inadmissible. He gives it in ʒj. doses three times daily, its nauseous flavour being best disguised by almond emulsion. Two ounces of the conf. amygd. should be used to the half-pint of water, the residuum being removed by straining. The following is Mr. Carmichael's formula:—℞. Olei terebinth. rectif. ʒj., vitellum ovi unius. Iere simul. et adde gradatim, emulsionis amygdalarum, ʒiv., syrupi corticis aurantii, ʒij., spiritus lavandulæ compositi, ʒiv., olei cinnamomi, gtt. tres vel quatuor. Sumat. coch. ij. max. ter die. In a few cases it has been necessary to increase the quantity of the turpentine to an ounce and half, or two ounces in the mixtures, the other ingredients being proportionally diminished, and the dose being a drachm and a half or two drachms. The strangury, so apt to follow, is obviated by infus. lini and mist. camph. but when very urgent the turpentine may be suspended for a time. The tendency to acidity of the stomach, is relieved by the addition of ten or fifteen grains of the carbonate of soda to the eight ounces of the mixture. If inflammation runs high, local abstraction of blood may be necessary, as where mercury is used in general it is not required. The state of the bowels requires attention, and constipation must be prevented. Such are the opinions of Mr. Carmichael. Mr. Guthrie has made a trial of the remedy at the Eye Infirmary. In some cases it has succeeded admirably; in others it has been of little service; and in some unequal to the cure of the complaint. Mr. Lawrence has had no experience of it.

This concludes the history of syphilitic iritis, the most complete perhaps that has been offered to the British public. The manner of handling it is certainly monotonous, unnecessarily dry, and too tautological. But the matter is good, the information offered is derived from practical experience and we must look on the whole as a contribution of no mean value to ophthalmic surgery. We are next presented with the details of twenty-nine cases. We have not space for many, but cannot refrain from noticing a few.

CASE 1. (I.) *Acute syphilitic iritis with papular eruption—extensive and repeated effusions of lymph on the surface of the iris—atrophy of the globe.*

W. W. æt. 21, a stout healthy man, had a sore on the prepuce, in the middle of May, 1827, and soon afterwards a bubo in each groin. He took pills, the sore healed, the swellings subsided, but his mouth was not made sore. In six weeks eruptions appeared, and he consulted a quack doctor without benefit. About the 8th of August he began to have pain in the right eye, and on the 16th there were the usual symptoms of iritis. The sclerotica was of a bright pink hue round the cornea, while numerous turgid trunks were seen lying rather farther back—the conjunctival vessels were distended—the iris had a dull muddy appearance without any trace of the natural fibrous structure, the inner circle being reddish brown, whilst in the outer this tint was mixed with a dull yellowish colour—the pupillary margin was thickened and irregular—the cornea dull, and the anterior chamber generally cloudy—the eye painful, especially on exposure to light with epiphora—vision very imperfect. There were also pains in the shin-bones—a declining papular eruption over the body—and a few papulæ on the mucous membrane of the eye-lids, where they formed small yellow points as large as a pin's head. *Cal.* gr. ij., *opii* gr. ¼. 6*tis. hor. Moistened extract of belladonna to eye-brows—milk diet.*

On the 19th the patient was worse, the iris was darker-coloured, and the anterior chamber more obscure. *Hirud.* vj. *tempor.* On the 20th a mass of light coloured lymph had been effused on the lower and outer part of the iris, which was more discoloured and very irregular. The mouth was slightly affected by the mercury, On the 21st the mass of lymph had increased. *Mercurial liniment to be rubbed on the arms night and morning.* On the 23d the eruption was disappearing, and the pains in the bones were gone, but the eye was acutely painful, and the effused lymph was increased. The mouth was very sore. On the 27th another small effusion of lymph had taken place below the former, which was rather increased. On the 30th no abatement of the inflammation or pain ; one large brownish yellow mass of lymph occupied nearly the lower half of the iris. *Twelve leeches to the eye.* Great relief was experienced, and on the 4th Sept. the external redness of the eye was less, the pain was gone, and the mass of lymph was diminished. The pupil, dilated by belladonna, was quite misshapen by adhesions. On the 11th the lymph was almost entirely absorbed, the eye altogether much improved, the ptyalism severe. *Omr. infric. P. c. cal. et op. b. d. tantummodò—broth diet.* On the 15th he was allowed some meat and beer, and there was a relapse on the 18th. *Cal. et op* 6*tis hor., Emp. canth. temp. dext. Continue meat and beer.* 21st. Effusion of lymph renewed in former situation. *Milk diet.* The blister produced no vesication, and next day the eye was worse. *Hirud.* xij.—*emp. canth. et. postea cerat. sabinæ.* The blister and savine obviously aggravated the inflammation, the lymph was increased on the 25th, and there was a further deposition into the texture of the iris. Sixteen leeches were applied on the 26th, 27th, and 29th, of Sept. with favourable results, the absorption of the lymph proceeded slowly, and on the 6th October, eighteen leeches were applied. On the 8th there was a relapse of inflammation attributed to cold. *Hirud.* xx. Next day the leeches were repeated, and inunction with the mercurial ointment commenced. The patient, however, grew dissatisfied, and resorted to an ocu-

list. On the 7th March, 1828, he returned, having completely lost the sight of the right eye, which remained inflamed and painful. We need not mention the treatment in the interim. There was now considerable external redness, especially on the lower and outer part of the globe, where a collection of dark red vessels was seen. Nearly the whole anterior chamber was occupied by a quantity of lymph, which allowed only the upper part of the iris to be seen; it was of a reddish-brown appearance. There was a deep-seated aching in the globe, and the right orbit and temple were constantly painful. *Hirud.* xij., *tempor.*—*Ung. Hyd.*, 3 j., *nocte maneque infric.*—*Cal.* gr. ij. *Op.* gr. j., *bis die.* The mouth was made sore—the inflammation of the eye gradually subsided, and at the end of two months atrophy of the globe had commenced and was proceeding.

Case 2. (III.) *Syphilitic Iritis of both eyes—acute in the left, and terminating in atrophy.*

"Thomas Robinson, ætat. 19, of pallid complexion, and apparently strumous habit, thin and weak, had a sore as large as a sixpence on the outer surface of the prepuce, about six months ago. It healed under the application of the black wash, and the use of a few mercurial pills. He had no other syphilitic symptoms. Ten weeks ago he found his eyes becoming very weak; they watered a good deal, and he was obliged to discontinue his work as a steel polisher. About the same time he received a blow on the left eye from a twisted piece of paper. He has completely lost the sight of the left eye for the last five weeks: vision of the right eye has been much impaired for the same time. The left eye has suffered serious change of structure from acute internal inflammation, which still continues, and has altered the figure of the globe by causing a bulging of the lower anterior part of the sclerotica. The iris and pupil are in close contact with the cornea; the pupil being contracted, but not filled by any opaque substance. At the lower part of the iris there is a considerable and irregular deposition of lymph, brownish, and apparently mixed with blood. On the prominent part of the sclerotica there is a round protrusion, equal to a small pea, of light brownish appearance, covered by conjunctiva. It seems to be a portion of lymph making its way through the sclerotic coat, and it leads to the supposition that the distention and bulging of the sclerotic coat, as well as the contact of the iris with the cornea, are caused by an internal deposition of lymph, similar to that which is effused upon the iris. The inflammation has extended to the outer tunics; there is considerable and general external redness, but the vascular trunks are largest and most numerous over the prominent portion of the sclerotica. The accompanying pain has not been in proportion to the vascular congestion, the effusion of lymph, and the disorganization: it has not interrupted rest, and is at present inconsiderable. The eye is absolutely insensible to light. No disorder is observed in the right eye on a superficial view; but closer examination detects in the iris and pupil effects of languid or indolent inflammation, the character and consequences of which are strongly contrasted with what has occurred in the other eye. The iris has in great measure lost its natural brilliancy and fibrous appearance, and its lower half has a slight yellow tint. The pupil, in point of size, is in about its middle state, and adherent throughout by a series of minute short dark filaments, which give it a fringed appearance. There is some redness round the margin of the cornea, and this is most conspicuous below, opposite the yellow discoloration of the iris. He can distinguish letters an eighth of an inch in length, with some difficulty, and cannot see any of a smaller size. He has had no pain, heat, nor uneasiness in this eye, nor any pain in the head or temples." 226.

He was cupped on the temples to 12 ozs. and had calomel and jalap.

On the 15th he was ordered *Col.* gr. ij., *Opii*, gr. 1-3, *6tis hor.—Belladonna superciliis.* On the 21st, the mouth was decidedly affected. The left eye was much improved; the external redness was gone from the upper part of the globe, and the quantity of lymph was diminished. The appearance of the right eye was not much changed. *Cal. et Op., bis die.* On the 25th, the mouth was less affected, and there was little alteration in either eye. *Cal. et Op., t. d.* On the 31st the mouth was again sore. The left eye felt flaccid, and unresisting on pressure. On the 19th January the left eye had shrunk considerably, the globe being so flaccid that it felt quite soft through the palpebræ; the lymph was completely removed from the anterior chamber, and the prominent tubercle on the sclerotica was absorbed. The right eye was quite natural, excepting the pupillary adhesions, but vision was still imperfect. The mercury was continued so as to affect the mouth, up to the 8th of February, when he was discharged. He could read the smallest print by day-light, but not so perfectly by candle-light. The left globe was considerably shrunk.

CASE 3 (VII.) *Syphilitic Iritis of the left eye, without any other constitutional symptom.*

James Taylor, æt. 25, a stout healthy man, a pavier, had been salivated six or seven times for the venereal disease. In November, 1829, he had a sore on the penis, with buboes and eruptions. The mouth was affected for a short time with mercurial frictions, and he soon got well. Whilst in the hospital, with the mouth still sore, he was attacked with an inflammation of the eyes, which subsided under two cuppings and aperient medicines. He continued well till the 28th April, 1828, when he experienced dimness of sight in the left eye, soon followed by pain and inflammation. It became gradually worse, nothing was done for it, and he re-entered St. Bartholomew's Hospital on the 5th of May. There was now considerable external redness—the iris was dull and discoloured throughout, and did not move on exposure to light, which caused no increase of pain nor lachrymal discharge—the pupil was partially dilated—the cornea was dull, with a general cloudy appearance in the anterior chamber—the patient suffered little in the day, but the pain in the eye prevented rest at night. He could not distinguish even large print with the left eye, and saw indistinctly with the right, which was affected sympathetically. *C. c. temp. sinist. ad* ʒxiv. *Cal. et Jal. Postea haust. purg. Ung. Hyd. fort.* gr. vi. *Pulv. opii.* gr. ij. *supercilio nocte infric.* On the 6th, he had 12 leeches, and was ordered *Cal. et Op., 6tis hor.* On the 8th he was cupped on the back of the neck to 16 ozs. On the 9th salivation had occurred, and the eye was much improved. On the 1st of June he was discharged perfectly well.

CASE 4. (XII.) *Syphilitic Iritis of both eyes, with primary sore and bubo, and papular eruption—no previous use of mercury.*

John Rose, æt. 20, of strumous diathesis, applied at St. Bartholomew's on the 27th October, 1825. There was a superficial healing ulcer on the prepuce, with a firm and rather indurated cicatrix, showing the sore to have been originally more extensive—a healing ulcer, the size of a half-crown, in the groin—an eruption over the whole body of thinly scattered red pimples which suppurated slightly, and then declined, being most numerous on

the face—well-marked iritis of both eyes, most advanced in the left. The irides, especially the left, were of a dull yellowish green; the pupils extremely irregular from slender adhesions; a considerable zone of external redness round the cornea, which in the left eye was hazy—vision greatly impaired, especially in the left eye—little pain in the eyes, and that only at night—skin and conjunctivæ slightly yellow—no fever. Three months previously he had contracted the sore behind the glands and a bubo, which suppurated. Five weeks previously he had been confined by jaundice. The eruption and inflammation of the eyes had existed seven days. *Cal.* gr. ij., *Op.* gr. 1-3, 6*tis. hor.* *Ext. Belladon. palpeb.* *D. lact.*

On the 30th the mercury had produced no effect; the iritis was increased. The left cornea was very dull, and he could see nothing with that eye—severe pain in the head preventing sleep. *C. c. temp. sinist. ad* ʒxiv. *vel* xvi. *Cal. et. Op.*, 4*tis horis.* The mercury affected the system in twenty-four hours and the symptoms regularly and rapidly decreased. On the 3d Nov. the mouth was very sore. *To discontinue the mercury.* On the 6th, the primary sore was healed, and the induration removed; the eruption had disappeared, leaving only a few slight discolorations of the skin. Vision was restored. The irides had recovered their natural blueish-grey tint, the pupils were largely dilated and most of the adhesions had given way, the corneæ were perfectly clear, the red zone nearly gone. On the 9th the adhesions had nearly disappeared. On the 14th there was a slight blush of redness on the sclerotica, of the left eye. *Pil. Hyd.*, gr. v. *t. d.* On the 16th the redness was increased, with slight pain in the eye. *Cal. et. Op.*, 6*tis hor.* On the 18th the mouth was sore and the redness diminished. On the 21st the right pupil had again become adherent at two points. On the 25th the mercury was discontinued. Vision and the natural colour of the irides were restored; the pupil adhered at two or three points in each eye. On the 30th he was discharged cured.

Case 5. (VI.) *Syphilitic Iritis treated without mercury, and ending in contraction and adhesion of the pupil, with dimness of sight.*

Mr. I., aged 22, of light hair and complexion, and robust habit, had an ulcer of the glans of moderate size, for which he took blue pill so as to affect the mouth slightly. The sore healed in a fortnight, and he used the remedy about three weeks. There was no affection of the glands. Two months afterwards he had severe inflammation of the eyes, which first appeared in the right, and in a few days attacked the left also. It lasted about a month, was attended with external redness, increased sensibility to light, lachrymation, and considerable pain; the latter coming on severely after he went to bed, lasting through the night so as to prevent sleep, and becoming less in the morning. No suspicion was entertained that this affection was syphilitic; no mercury was used, but active antiphlogistic measures were resorted to, including venesection, loss of blood by cupping three times, and numerous applications of leeches. When the inflammation had subsided, dimness of vision remained in the left eye, but the right recovered completely, although the pain had been most considerable in the latter.

In the course of a few weeks after the cessation of the inflammation, this gentleman consulted me on account of his left eye, in which I found a slight alteration in the colour and appearance of the iris, and several thread-like adhesions of the pupil, fixing the aperture in a state of contraction. He could see objects and even read in a good light, but found a mistiness or dimness before the eye. He had also small copper-coloured scaly eruptions

on the the palms and fore-arms, and ulceration of the tonsils, although these symptoms had troubled him so little that he did not mention them to me, and I found them out only in consequence of questioning him on the subject. I ordered him two grains of calomel with one-third of a grain of opium thrice daily, and the solution of the extract of belladonna to be dropped into the eye. I saw him again at the end of a month, when I found that the mouth had been soon affected by the mercury, and that it still continued moderately sore. The eruptions and sore throat had entirely disappeared, and the dimness of vision in the left eye was nearly gone." 236.

CASE. 6. (XI.) *Syphilitic Iritis of both eyes—mercury not previously used—one eye cured by the antiphlogistic treatment—mercury necessary for the other.*

John Durrant, æt. 22, a groom, admitted into St. Bartholomew's on the 23d June, 1829. Sclerotic of the right eye of a light pink hue on the front of the globe, the colour being deeper towards the margin of the cornea—iris dull and sluggish, the greater circle being nearly of natural colour, the lesser reddish brown or rusty coloured from the general effusion of lymph into its texture—edge of the pupil slightly thickened and villous, and adhering by a single brown thread—colour of the pupil natural—considerable pain in the eye, increased at night and on exposure to light—frequent epiphora—vessels of the conjunctiva partially turgid—cornea unaffected. He cannot even read a large print. The left eye exhibits similar appearances, but less in degree, and a single thread of adhesion appears in the pupil. A month or six weeks before Christmas he had gonorrhœa. About Christmas he had a small sore on the prepuce, and a swelling in the groin. He merely took some salts, and the symptoms disappeared in a month. At Easter he got wet, and rheumatism in the limbs, and cough and pain in the chest supervened, for which he was bled, and of which he gradually recovered. The affection of the eyes began three weeks ago, that of the right the first. Has had six leeches and a lotion, but no mercury. *C. c. tempor. ad* ℥ vj.—*Cal. et. Jal. Postea Pulv. purgans.*

On the 24th there was head-ach and feverishness. *V. S. ad* ʒxx.—*H. sal. antimoniat. 6tis hor. 26th. C. c. nuchæ ad* ℥xvj.—*Ext. Belladon. superciliis.* JULY 1. Right eye now well, and vision nearly perfect. The disease has advanced in the left eye, which is more painful. The belladonna always increases the pain and must be left off. *Hirud.* xij. *oculo. sinist.* On the 3d the inflammation was not diminished, although the strength was much reduced. A full papular eruption had appeared. *Cal.* gr. ij., *Op.* gr. 1-3, *6tis hor.* The mercury at first caused purging, without affecting the mouth, but in the course of a fortnight ptyalism had been induced, and it was then discontinued. The natural appearance and powers of both eyes were completely restored, the eruption was nearly gone, and the health was much improved on the 22d. He was dismissed cured on the 1st of August.

CASE 7. (XV.) *Syphilitic Iritis, occurring during the use of mercury, and affecting both eyes in succession—very acute in the left eye—repeated relapses.*

Sarah Briant, æt. 17, a common street-walker, admitted into St. Bartholomew's Hospital, with a vaginal discharge, condylomatous excrescences and sores about the anus, and an eruption half itch, half of scaly syphilitic

character on the trunk and extremities. The sores had appeared about three months previously. The mouth had been made slightly sore by mercury. Common means were used with good effect, but on the 10th December the livid discoloration continuing, she was ordered *Pil. Hyd.* gr. v. *bis die.* On the 16th the right eye was affected with iritis; there was increased vascularity of the sclerotica, general discoloration and dullness of the iris, and fixture of the pupil in about the middle state. On the preceding night she had suffered severe pain in the globe. *V. S. ad* ʒxvj. *Hirud.* xij. *P. c. Pil. Hyd. Fot. papav.* She was relieved by these means. On the 22d all traces of the iritis were gone; the mercury was discontinued, the mouth having been sore for two or three days. A glandular swelling in the neck suppurated, and the patient was not discharged till January 20th, the gums being still a little tender.

On the 30th, she was admitted with most acute inflammation of the left eye. It had commenced on the second day after her discharge, and rapidly increased—there was unremitting and most severe pain over the brow, and intense general head-ach. The sclerotica was almost of a violent tint—the cornea generally hazy—the anterior chamber cloudy—the iris dark and dull from general effusion into its texture, whilst a distinct mass of reddish lymph was deposited at its lower part near the pupil, which was motionless, irregular, and moderately contracted. *V. S. ad.* ℥xxx. *Hirud.* xij. *Vesp. Cal. et Jal., postea haust. sennæ. Cal. et Op.* 4*tis hor.* Next day she was better. All the textures of the eye were less inflamed, and the lymph on the iris was a little diminished. The bleeding had produced faintness, and the blood had a firm buffy coat. The mercurial fetor was perceptible in the breath. *Hirud.* xj. *haust sennæ.* On the 4th of February, a very marked improvement in the state of the eye had taken place. The inflammation of the conjunctiva and sclerotica was considerably diminished—the iris had nearly regained its natural colour, though a small quantity of lymph seemed still to remain where the mass was before observed, producing unequal dilatation under the use of the belladonna. Two days previously ptyalism had come on, and the calomel had been discontinued. *Moistened extract of belladonna to be smeared over the brow.* On the 6th, vision was much better. The pupil was more dilated, and exhibited three strongly marked irregularities from points of adhesion. On the 10th, she could distinguish small print with perfect ease, and the adhesions appeared to be giving way. On the 15th, vision was perfectly restored; the pupil was freely dilated by belladonna; the adhesions scarcely perceptible

On the 19th, the eye was again inflamed. There was increased redness of the external tunics, and a considerable brownish discoloration of the iris at its inner circle. Vision was rather confused; no material pain in the globe. *C. c. tempor. ad* ʒxij. *haust sennæ.* The eye was relieved, but hemicrania was complained of, and menstruation was deficient. *Pil. Al. c. Myrrh.* On the 27th, there was again a slight relapse of inflammation of the left eye, with considerable head-ach. *C. c. tempor. ad* ʒx. No blood was obtained, and on the 28th there was more discoloration of the iris. *Hirud* xxiv. March 1. Head-ach more severe. *V. S. ad* ℥xiv. She was much relieved by this. On the 1st of April violent inflammation attacked the right eye, chiefly the sclerotica and iris, with great pain in the globe and in the head, and inflammatory fever. The left eye was slightly

affected. *V. S. ad syncopen.* (42 oz.) The blood was buffed, and next day the symptoms were diminished. On the 3d April the improvement was still more decided. *Ht. sal. &c.* On the 6th a relapse of the inflammation. *V. S. ad* ℥xij. On the 8th, *hirud.* xij. *Emp. Canth. nuchæ.* The symptoms were very much relieved, bnt on the 15th there was a partial relapse in the same eye. On the 16th the inflammation was more severe. *Pil. Hyd. Sub. c. nocte maneque. Hirud.* xviij. *temp. dext.* She gradually recovered, and was discharged early in May. She was much reduced. Since leaving the hospital, she has had three smart attacks of pain in the globe, but each yielded to a few leeches, a brisk purgative, and the subsequent use of quinine. The catamenia have in some measure returned, and she follows a laborious occupation without difficulty.

CASE 8. (XXVII.) *Syphilitic Iritis treated ineffectually on the antiphlogistic plan, and immediately arrested by the use of mercury.*

"Ann Holly, aged 21, was admitted into St. Bartholomew's Hospital on the 9th of October, 1828, with gonorrhœa, large ulceration at the lower part of the entrance of the vagina, and a small indurated sore on the right nympha. On the 19th, she complained of pain in the left eye, which was a little redder than usual; six leeches were applied. The inflammation was more considerable the next day, and seated in the sclerotic coat: although there was no decided affection of the iris, I pointed it out to the pupils as being probably the very commencement of syphilitic iritis, and affording a favourable opportunity for trying the antiphlogistic plan. A large cupping was ordered from the temple, with an active purge of calomel and jalap. These means afforded no relief; and on the 22d, the iris had become dull, and sight was a little dim.—(Twelve leeches round the eye; two grains of calomel with one-third of a grain of opium every six hours.) No relief was experienced from the leeches; but the mercury acted on the system in forty-eight hours, and the affection was immediately checked. All appearance of inflammation had gone in our or five days, and she was discharged well on the 5th of November." 302.

CASE 9. (XXV.) *Syphilitic Iritis—adhesions of the pupil, destroyed by the use of mercury and belladonna.*

Lucy Adams, æt. 20, admitted on the 21st Nov. 1828, with a small sore on each labium, and inflammation of the external tunics of the right eye; the sclerotica only was affected. The eye had been sore for three days, *C. c. temp. dext. ad* ℥xij. *Cal. et Jal. postea haust sennæ. Lot. Saturni. D. lact.* On the 24th, *hirud.* xij. *oculo. Pil. Hyd.* gr. v. *nocte maneque.* The inflammation of the eye gradually grew worse, and ended in a well-marked attack of syphilitic iritis. The iris was dull, discoloured, the pupillary margin was adherent in such a manner as to render the pupil transversely oblong. There was a pink zone round the cornea, pain in the eye, the brow and head, and dimness of vision. *C. c. temp. ad* ℥xij. *Cal.* gr. ij. *Op.* gr. 1-3, *8vis hor. Belladonna supercil.* The mercury acted quickly and powerfully, immediately arresting the adhesive inflammation of the iris. On the 1st December the effused lymph was completely absorbed, the iris had regained its natural colour and brilliancy, and the round figure of the pupil was restored. She was discharged on the 10th.

CASE 10. (XXIX.) *Syphilitic iritis, with other syphilitic affections, in an infant.*

"Jane Mudie, ætat. 26, and her female child, 16 months old, were admitted into St.

Bartholomew's under my care, on the 31st of March, 1827. The mother had a discharge from the vagina with ardor urinæ three months before the birth of this child. The discharge continued till about three months ago, when she noticed sores on the external organs of generation. The labia, perineum, and verge of the anus are now occupied by elevated, warty, and ulcerated excrescences.

The infant, which was large and healthy at birth, had purulent inflammation of both eyes on the third day, and was taken to the London Ophthalmic Infirmary, where it soon recovered. At the age of five months a pustular eruption appeared on the neck, which soon went away. A discharge was then observed from the vagina; the labia swelled, and were excoriated; as this got better, flat warty excrescences appeared on the perineum and round the anus. Their surface is now ulcerated as in the mother.—(For the mother: pil. hydrarg. gr. v. night and morning; black wash. For the child: hydrarg. c. creta, gr. iv. twice daily; frequent ablution of the affected parts.) The symptoms, both of the mother and child, yielded to this treatment, and they were discharged well in about three weeks.

They were re-admitted on the 21st May. The mother has now redness and swelling of the tongue at its apex, with an ulcerated fissure in the middle; and a superficial sore with yellowish surface, on the mucous membrane of the lower lip. These sores have existed for a fortnight; there is no return of disease about the external organs.—(Hydrarg. oxymur. gr. 3-8, in decoct. sarsap. comp. lb. i. daily.) The child has excoriations and ulcerations round the anus, which re-appeared in a week after leaving the hospital. She has also, in the left eye, iritis in a mild form, which the mother ascribes to a cold caught by having the head wetted. It began three days ago. The iris has lost its brilliancy, and assumed a dark tint; the pupil is a little contracted; there is some redness of the sclerotica, and of the upper lid, and slight intolerance of light.—(Hydrarg. c. creta, gr. v. night and morning.)

24th. A small red and painful spot has appeared on the side of the tongue, near its basis, in the mother. The child's eye is worse. (Three leeches.) The mild mercurial treatment above described was continued, both for the mother and child, till the 4th of June, when they were discharged, all symptoms having been completely removed. They were seen at the hospital some time afterwards quite well." 307.

We now pass to the second division of this part of our able author's work. It treats of syphilitic ulceration of the eyelids.

II. Syphilitic Ulceration of the Eye-lids.

1. *Syphilitic Eruptions of the Palpebræ.* Syphilitic eruptions, particularly the scaly and tubercular, frequently appear on the external surface, and on the ciliary margins of the lids. The latter are almost always red, excoriated, and sore in that form of syphilis imparted to an infant by a diseased mother or nurse, which is always confined to the skin. The mucous lining of the palpebræ sometimes participates in the syphilitic eruptions, but not so often as reasoning would lead us to expect. In Case 1, there were papulæ on the internal surface of the eye-lids. Some years ago our author had a gentleman under his care, with acute papular eruptions following chancre. The eruption extended to the mucous lining of the palpebræ, in which there were several pustules about as large as pin's heads, with some uneasiness and general swelling of the lids. They required no particular treatment—active antiphlogistic measures were employed. In August a scaly eruption appeared on the legs, the marks of the papulæ were

still visible on the face; and the left upper lid was still red and rather swelled, the conjunctiva red and thickened, and the marks of the papulæ very evident. A patient was twice in Bartholomew's Hospital: first for phagdeænic ulceration of the labia and one nympha, and subsequently for tubercular eruption, node of one tibia, and swelling of the upper eye-lid of one eye. The conjunctival lining was swollen, and an eruption of small pustules were observed upon it. She took calomel and opium freely, her symptoms quickly disappeared, and she was discharged cured.

2. *Syphilitic Ulceration of the Eye-lids.* It is not very rare, yet it is not described in works on syphilis. Our author's attention was first attracted to it many years ago by a case in Bartholomew's Hospital. A stout woman, who had long been on the town, was admitted with an ulcer which had nearly destroyed the lower eye-lid. The surface was greyish, with bloody points, the edge towards the cheek livid and sloughy, the discharge ichorous; the neighbouring parts were acutely inflamed and the face swollen; the sore and its vicinity acutely painful. There was no other venereal affection, local or general. Our author did not suspect syphilis, and employed leeches, fomentation, poultice, and opium without benefit, for the lid was completely destroyed. He now affected the mouth with calomel and opium, in two or three days the sore acquired a healthy surface, and cicatrization soon followed. He now entertains no doubt, that the ulcer was syphilitic. Soon afterwards Mr. L. had another case of a somewhat similar kind, and in the last few years he has seen so many, as to have learned that the progress and character of such sores are various in this as in other parts of the body.

The ulcer commencing on the ciliary margin, like a stye, may occupy the whole thickness of the lid, involving all its textures; or it may be confined to the external surface of the lid; or it may arise on the mucous surface and never extend beyond it. In one patient affected with syphilitic ulcers and periosteal swellings, the left upper eye-lid was red and swollen, and on its eversion there was seen on its inner surface a sore as large as a sixpence, with a tawny surface, and not reaching the edge of the lid. Mr. L. has seen several smaller sores at the same time on the mucous lining of both upper lids. The ulceration is sometimes acute, attended with inflammation and great pain, and rapidly destroying the affected part. In other cases there is little inflammation or pain, the disease proceeds slowly, and the cure is accomplished almost without the loss of substance. The character of the sore will vary of course. The acute ulceration is of the phagedænic character, with red margin, sharp edge, foul unequal surface, on which bloody points are seen, and severe pain. In the chronic there is swelling and some hardness of the basis of the sore, with expansion of the cutaneous texture, instead of loss of substance, and little or no pain. Ulceration of the eye-lid generally occurs in conjunction with other syphilitic symptoms, such as ulcers in other parts of the body, and swelling of the bones or periosteum. In Case 1, the affection of the lid was the only secondary symptom for about two months, at the end of which time scaly eruption appeared. In other cases the eye-lid is the only part affected. A gentleman had a large ulcer, with dirty whitish surface, on the lining of the upper eye-lid. The character of the sore and the health of the patient made

Mr. Lawrence conclude that it was venereal, although he had not been affected with syphilis for a long time. The sore healed under the use of mercury and sarsaparilla.

The lower lid may be completely destroyed by ulceration, and yet the deformity may not be conspicuous; the upper lid when the eye is shut, descending over and covering the globe. No other ulcerative affection of the palpebræ can well be confounded with that now described. In the great majority of instances the ulcers called cancerous begin in the integument and are for a long time confined to it, not reaching the ciliary margin or mucous surface until the disease has made some progress. It has two stages, the tubercular and the ulcerative. It begins with the formation of small, hard, and scarcely discoloured tubercles in the skin—these exist many years before ulceration takes place—it then proceeds slowly, the edge of the ulcer being hard and tuberculated, and several years elapsing without any great progress—the ulcer is gleety and has a scanty thin discharge, which forms an adherent scale on the surface. These cancerous ulcerations do not occur till the middle period of life and after it. The history of the case and its progress distinguishes the syphilitc ulceration.

Treatment. This may be summed up in a few words. Our author has tried mercury, found it answer, and been content. He has not experimented with sarsaparilla or other remedies. We pass to the cases detailed.

Case 1. (I.) *Indurated sore of the prepuce with phymosis—scaly eruptions—large ulcer of the upper eye-lid.*

George Vaux, æt. 43, a copper-plate printer, a free liver, applied to Mr. Lawrence in August 1829, with the left upper eye-lid thickened and elongated, and capable of being elevated partially only; its whole external surface covered by a circular sore, nearly an inch in diameter, encroaching on the ciliary margin, and, having destroyed a part of the eye-lashes; the sore considerably raised, its base and margin being thickened and rather indurated; no excavation of the surface, which was covered by a dry thin brownish scab. The sore and the surrounding skin were of reddish brown colour, the eye not inflamed, nor the sight injured. There was only a little smarting in the sore. Partial phymosis with copious yellow discharge—a hard lump felt on taking the prepuce between the finger and thumb, and an ulcer seen occupying the surface of the induration on forcibly retracting the pepuce. On the forehead were some coppery discolorations, and the same in other parts with a slight scaly appearance. In March he had contracted gonorrhœa, and in a fortnight afterwards a sore appeared, which soon became obscured by the phymosis. In June the ulceration of the eye-lid commenced with a hard pimple on the margin of the lid amongst the lashes, which was lanced soon got well, broke, and scabbed.

Under a poultice the scab came off, leaving a clean sore. On the 11th he was put upon calomel and opium, and on the 19th salivation had occured. The hardness of the prepuce was diminished, the eruptions faded, the ulcer of the eye-lid healthy and cicatrizing. The mercury was taken less frequently. On the 26th the mercury was discontinued. The sore had nearly cicatrized, but had reached the mucous membrane; the eruption had disappeared; the sore on the prepuce had healed, and the discharge was gone. As the ptyalism subsided, the new cicatrix excoriated, and on

the 9th September the ulcer was again spreading. Calomel and opium every night. On the 11th it was ordered twice daily, and on the 14th every eight hours. The mouth was again made sore, and pari passu, cicatrization of the sore advanced. The healing was accomplished by the gradual extension of new skin from the cutaneous margin of the ulcer to the mucous. On the 21st the mercury was ordered twice daily, and on the 23d it was discontinued, and on the 28th the patient was dismissed with a sore mouth. In the following May the thickening of the lid had disappeared entirely, the integument was natural, and the only mark left was a little deficiency in the ciliary margin and corresponding want of eye-lashes. Soon after this a tubercular eruption appeared on the serotum, with superficial ulceration of the fauces, and imperfection of hearing. The lid continued well. The patient was put on blue pill.

CASE 2. (IV.) *Phagedenic Ulcer of the upper ey-lid without any other syphilitic symptoms—cured by mercury.*

"Louisa Williams, a fine healthy young woman, 25 years of age, was admitted into St. Bartholomew's Hospital, under the care of Mr. Earle, on the 14th of May, 1829. A phagedenic ulcer occupied the whole surface of the right upper eye-lid, and extended to both canthi; it had destroyed the external canthus, and the ciliary margin of the lid, and was extending along the conjunctival lining as well as externally. The surface of the ulcer was covered with a dry brownish scab; the margin was inflamed, and acute pain was felt in the lid and over the brow. The patient asserted that she had never been affected with syphilis in any form, and referred the origin of the disease to a cold taken two weeks before, and followed by a sty, which broke, and gradually spread into a sore. When the scab had been removed by fomentation and poultice, lunar caustic was freely applied to the whole surface.

17th. The character of the sore is not changed; it continues very painful.—(Black wash, hydrarg. oxymur. gr. 1-8 in essent. sarsaparillæ, ʒss. thrice daily.)

21st. The ulceration is spreading; the surface is ash-coloured, particularly the margin, with an admixture of bloody points and streaks.—(Undiluted nitric acid to the parts last mentioned.)

I saw this patient on the 23d, with Mr. Earle, and found a large phagedenic ulcer of the lid, with inflamed margin, considerable and general inflammation of the conjunctiva, and great pain. I considered the disease decidedly syphilitic, and recommended that mercury should be employed so as to act speedily on the constitution.—(Two grains of calomel with one-third of a grain of opium every four hours.)

26th. The mouth is sore; the character of the ulcer is changed, and its progress is stopped.

31st. Cicatrization has proceeded very rapidly, and the patient leaves the hospital to-day quite well." 332.

CASE 3. (V.) *Ulceration of the eye-lids, and other syphilitic affections in the eyes of two children.*

Sarah Coster, æt. 36, contracted the venereal disease from her husband about ten years ago. She discovered her complaint only a few days before the birth of her first child. She was cured in about seven months by mercury. Twelve months afterwards a sore broke out on the right thigh; she was again salivated, and got well in three or four months. A discharge from the vagina alone remained till seven or eight months ago, when the integuments over the head of the right tibia became inflamed and painful,

and soon several small ulcers formed on the part. She was admitted for these under Mr. Earle, in July, 1827, and after a few weeks was discharged cured. In a fortnight the complaint broke out a-fresh, and gradually got worse till August 24, when she was re-admitted under our author. She had now phagedenic syphilitic ulcerations of the leg, and pain in the tibia, particularly at night. *Pil. Hyd.* gr. v. *nocte maneque—Lot. cal. c. Hyd. Oxymur. Cat. panis.* On the 3d Sept. she left the hospital of her own accord, the leg being nearly healed.

Children of Sarah Coster. Her first child was a fine healthy boy at birth. A few days afterwards he had a severe attack of purulent opthalmia in both eyes which was cured in three weeks, and he has remained healthy.

Her second child, Sarah Coster, aged six, was also born healthy. A fortnight afterwards small healthy pimples broke out about the parts of generation, which were very red and sore. Patches of discoloration appeared about the face and head ; the skin generally was rough ; several of the nails separated leaving a scabby surface; the nostrils were blocked up with a thick yellowish matter ; the eye-lids became inflamed and were agglutinated during sleep. She took grey powders (*hyd. c. cret ?*) for several months, which caused soreness of the mouth, but did not cure her. She was in the hospital under Mr. Earle, in July, with sores on the lips, cheeks, and eye-lids ; the latter alone remained sore when she went out with her mother.

The third child, Henry Coster, aged four, was born healthy and continued so till eight months ago, when the glands of the neck became enlarged and painful. He had also inflammation of the eyes, with great intolerance of light. He was cured in a few weeks and remained well for two months, when an eruption appeared over the whole body, with excoriation and foul ulceration about the anus and external parts of generation. These symptoms disappeared under the use of mild mercurial powders, when he was in the hospital with his mother in July. Soon after he left the hospital the eyes became inflamed, and a few spots appeared on different parts of the body. He re-entered the hospital with his mother on the 24th August. The right upper eye-lid was inflamed and swollen, and on everting it the mucous membrane was found to be occupied, in the whole extent of the tarsus, by a syphilitic ulcer with elevated edge and foul surface. The left upper eye-lid also was inflamed and slightly swollen, but its mucous surface was not ulcerated. There were a few discolorations and scaly eruptions on the head and trunk. *Hyd. c. Cret.* gr. v. *o. n. Ablut tepid. tarsi.* The mother left the hospital in September, and the child accompanied her perfectly cured.

On the 4th October Sarah Coster was re-admitted, with her two children, Sarah and Henry. Her leg had got worse after she left the house, and now presented the same characters as before. Under small doses of the oxymuriate in the dec. sars. c. she was well enough to be discharged on the 26th November. The child, Sarah, had small superficial ulcerations about the mouth and on the mucous lining of the lips, and two rather larger sores on the cheek near the lobulus of the ear. The lids were red and slighty ulcerated on their margins. *Mild aperient medicine occasionally—ablution and simple applications.* The other child, Henry, had inflamed and slightly ulcerated eye-lids, with a small ulcer at the back of the neck. *Hyd. c. Creta,*

gr. v. *quotid.* In eight or ten days the mouth was affected, when the sores of the eye-lids healed. A large pustule formed both on the boy and girl, on the end of the right fore-finger, attended with considerable inflammation and pain. They left the hospital with the mother on the 26th November, and in March, 1828, the whole trio were reported sound.

This concludes Mr. Lawrence's work and our analysis. It is not our wont to indulge in long summings up. If we like a book we are careful to communicate its contents to the public; if we don't, we usually let it alone. This plan breeds fewest quarrels, and serves the interests of our readers very well. It is easy to indulge in sarcasm and invective, but it is not pleasant to experience or to witness their effects. By this simple rule the profession may ascertain our opinion of the present work, If we had not thought it good, we should not have taken such pains in our account of it. In short, it is a book which we conscientiously recommend to the notice of every man who would practice his profession with satisfaction to himself or advantage to his patient. Need we say more?

XIII.

LECTURES ON ANATOMY; INTERSPERSED WITH PRACTICAL REMARKS. By *Bransby B. Cooper*, F. R. S., Surgeon of Guy's Hospital, and Lecturer on Anatomy, &c. &c. Vol. II., large 8vo. pp. 308, two Plates. Highley, London, 1830.

WORKS on anatomy do not usually form the materials for reviews. An analysis would be preposterous, a critique ridiculous; for all that is required at the hands of the author is strict fidelity and minuteness, and a tolerably clear arrangement. Anatomical works may be divided into three classes. First, we may have a system of anatomy, and nothing else; no physiology, no surgery mixed up with the descriptive details. Secondly, we have the anatomical details interspersed with physiology, and practical precepts. And thirdly, we have the class of manuals, or dissectors, in which the textures of the body are not described apart and in series: but portions of the body, as the perineum for instance, are considered in the lump. Each has had its advocates. For our own parts, we approve, like Candide, of all. In dissecting a body the student must have a manual. In reading at home and at his leisure, of what he has dissected, he should possess a more systematic work. But here comes the question. Shall the systematic work be, like Cloquet's and Boyer's, confined to anatomical detail; or shall it, like most of the works in this country, and, among others, like Mr. Cooper's, be combined with physiology and surgery. We do not pretend to decide which plan is the best when both have their advantages. Perhaps such a work as Mr. Cooper's would be more acceptable to the majority of young men than Colquet's or Boyer's; it is not so dry.

On a former occasion, we saw reason to speak in favourable terms of the first volume of the present work. We anticipated much from the zeal of

the author, nor have we been mistaken. We have said, and we repeat it, that Bransby Cooper's Anatomy would become a very popular work. As a specimen of its mode of execution, we subjoin a description of the cutis, taken, really, at random from the book. There may be many portions of a still better character, but when we cannot give an extended account of any book, the fairest mode of putting the public in possession of its merits or demerits, is thus to offer them a sample at hazard.

"The Rete Mucosum is situated immediately on the surface of the cutis, between it and the cuticle. The difficulty which attends the dissection and demonstration of this membrane, has given rise to various conjectures respecting its nature and particular structure. Hence the great variety of opinions between those physiologists who describe the rete mucosum as being composed of three distinct layers; while there are others of equal eminence who deny its existence altogether. According to the result of my own investigation, the following structure appears to be demonstrable.—To shew the mucosum, a piece of healthy black skin, just removed from the body after an operation, should be immersed in boiling hot water, and then thrown into alcohol. The cuticle may now be carefully peeled off, leaving the rete mucosum on the surface of the cutis; and when this has been done, its structure is visible (*Vide Plate* II. *Fig.* 8.), and appears to be composed of a net-work of veins, assuming a peculiar inosculation, differing from that of arteries. It is characterised by frequent, short, anastomosing branches, uniting nearly at right angles, or rather forming figures in which right angles predominate; while, on the contrary, arterial inosculations form figures, in which acute angles predominate; and these are seen, in the minute injections of the arterial distribution, on the surface of the cutis. (*Vide Plate* II. *Fig.* 9.) The venous structure is situated immediately underneath the cuticle, and exterior to the minute arterial distribution on the surface of the cutis; and appears to be the true seat of colour of the skin. There are two preparations in which this structure is very successfully demonstrated; the one may be seen in the Museum of the College of Surgeons, and the other at Guy's Hospital; the representation, Plate II. Fig. 8, is taken from the latter, magnified in the proportion of one inch to one-eighth of an inch.

This structure appears to be much thicker in the negro than in the European, and the vessels themselves much larger. In the preparation above alluded to, in the College of Surgeons, it is so thick at one portion, as very much to resemble the rete mucosum of the cetacei.

There is considerable difficulty in separating the cuticle from the rete mucosum, in consequence of its firm adhesion; and in those preparations which are even most successful, portions of it will be seen adhering to the raised cuticle. The process of putrefaction seems to go on more readily in this structure than either in the cuticle or cutis, which occasions the ready separation of the cuticle, and probably explains the reasons why, in this separation, the rete mucosum is not discernible, but merely a mucous deposit adhering both to the surface of the cutis and the cuticle. These surfaces have, therefore, been described as separate layers; while the colouring matter, which is well known to exist, has been assigned to the space between them; thus giving rise to the supposition, that rete mucosum is formed of three separate layers of membrane.

As the seat of colour, the rete mucosum has an undeniable existence; and it is clear, that the cuticle possesses a semi-transparency, through which this colour is more or less discernible. The black colour of negroes depends on the black colour of the rete mucosum, seen through the cuticle; in Europeans, also, various shades of colour are found, generally according with the colour of the hair and eyes; these various shades may be observed in the different gradations between a fair and brunette's complexion; the former, generally with light blue; the latter, with dark eyes, and jet black hair. It

is generally said that the rete mucosum is wanting in the Albino, and in white animals of other species. It does not, however, accord with the usual operations of nature, to have any structure entirely wanting: it may exist in a colourless state, and in a very small quantity—still smaller than in the European, where it is evidently less than in the negro.

Five principal shades have been enumerated as characteristic of the several races of mankind. In the Caucasian, white; in the Mongolian, yellow; in the Æthiopian, jet black; in the American, copper colour; in the Malayan, tawny, or resembling dark mahogany." 285.

It may readily be imagined that a work made up of such materials must be one of no mean value to the student, aye, and to the professional man in practice. When the whole of the volumes, four in number, are completed, we have no doubt whatever that their sale will amply prove the truth of our opinions.

XIV.

On the Pathology of Hooping-cough. By *James Alderson*, M.D. Physician to the Hull General Infirmary.

[Med. Chir. Trans. Vol. XVI.]

Dr. A. considering it strange that the pathology of this disease should be so much neglected, and that its treatment should be left so much to nurses and nostrum-mongers, has gladly availed himself of numerous opportunities of post-mortem examinations, in order to ascertain whether the general opinion of physicians respecting the non-inflammatory nature of simple pertussis be correct. He observes that when the physician is called in, and the case proves fatal, death is not ascribed to hooping-cough, but to inflammation of the lungs, or convulsions, "the most prominent symptom of the fatal stage of the disease." As the appearances on dissection, in all the cases which our author examined, were precisely the same, he conceives we are justified in considering them as "the effects of the continued and uncontrolled action of hooping-cough." We need not follow Dr. A. in his observations on the structure of the lungs, or his description of the symptoms of hooping-cough, but proceed to the cases and dissections—the most important portions of the paper.

"*Case* 1. On Monday, 26th March, 1828, I visited Sarah Allison, aged two years, residing in Blewett's Buildings, Fetter-lane: she lay upon the left side; respiration difficult, irregular, and nearly the whole act taking place by the diaphragm alone; pulse very frequent; face puffy and livid; lips purple; nostrils dry; alæ of the nose in considerable action; tongue white; countenance anxious; skin of the body hot; great thirst; extremities cold; frequent paroxysms of cough, during which the child put its little fingers down its throat to get rid of the phlegm; bowels open. She had been for three weeks affected with Hooping Cough, and several children had died of the same disease in the neighbourhood. She was freely leeched and blistered, and took saline mixture with digitalis and conium, with warm bath to the lower extremities; she took no other food than barley-water.

On the 29th, difficulty of breathing increased; great restlessness; face livid; respiration very irregular and abdominal; flatulent distension of the abdomen. In the evening, the hands became clenched and turned inwards; face puffy; jaw locked; each side of the body in turns convulsed, and she died in a few hours.

Dissection, thirty-six hours after death.—There were no adhesions of the pleura, nor any fluid in the cavity of the chest; the lungs did not collapse, they contained much air, which was with difficulty pressed out: in different parts of the lungs, but chiefly in the lower portions of all the lobes, a change of structure had taken place, which has been termed lobular hepatization; this was more evident in the middle lobe of the right lung, which was quite contracted to the size of the pancreas, and which it very much resembled in the sensation which it conveyed to the touch; the septa dividing the lobules were distinctly seen, and appeared perfectly healthy, the lobules themselves quite dense, and somewhat resembling the muscular structure of the heart; several of the smaller bronchial tubes were much dilated, and lined with thick mucus; there was no appearance of inflammation in the trachæa or in the larger bronchial tubes.

Case 2. John Allison, aged 7 1-2 months, brother to the preceding; a remarkably strong and vigorous child, had been affected for a fortnight with Hooping Cough; but as he took the breast freely, and was very lively, little had been thought of his complaints. I found him on the 11th April, 1828, breathing with great difficulty; respiration 62 in a minute, irregular and abdominal; nostrils dry, and alæ of the nose in great action; pulse 140; tongue white and furred. Three leeches were applied to the chest, and a small blister, for four hours, between the shoulders; a grain of calomel and one-eighth of a grain of tartarized antimony, every eight hours. On the 13th he had several convulsion fits, and the abdomen became distended with flatus. The evacuations like chopped grass and offensive, passed during the paroxysms of cough. 14th. Very sick from the antimony; had taken the breast several times, but as often vomited the milk. Bowels freely purged; motions not so green and offensive. 15th. System affected by mercury; tongue white, dry, and swollen; inner parts of the mouth and lips blistered, nostrils dry, skin of the upper parts of the body intensely hot, extremities cold, face flushed, lips purplish, breathing more laborious, catching, and abdominal. Died in the afternoon.

Dissection, forty hours after death, carefully made for me by my talented friend Dr. Hodgkin. The head was rather large, the forehead remarkably protuberant; the calvaria was not raised with greater difficulty than usually attends the operation in the infant. The quantity of serum in the ventricles and under the arachnoid coat was rather larger than was natural. The substance of the brain was of the soft consistence natural to the organ at the age of the subject. The only morbid appearance observable except the before mentioned slight effusion, was an irregular venous marbling of the medullary matter. There was no trace of pleuritic inflammation on either side of the chest. About one-fourth of both lungs, towards their posterior and inferior part, was the subject of a morbid change; the structure was rendered very firm and dense; its limits were perfectly defined, the septa between the lobules constituting the boundaries. The portions in which this change had taken place were of a dull red colour, perfectly void of air, sinking instantly when put into water and undergoing no change when thin slices were subjected to ablution in it." 85.

Dr. A. informs us that, in many other cases which he examined, he found the very same appearances, "uncomplicated with any evinence of pleuritic inflammation." In the lower and posterior portions of the lungs, the structure was rendered very firm and dense—the portions which were the subject of this change being exactly defined by the septa—of a dull red colour—devoid of air—sinking instantly in water—and thin slices undergoing no

change by ablution. The individual lobules, he observes, were more dense than in hepatized lungs, and the cellular membrane between them retained its natural structure, conveying to the touch the same sensation that is felt on handling the pancreas. The upper portions of lungs were spongy and crepitant; but little air could be expelled from them by the bronchial tubes. Most of the smaller tubes were filled with a thick secretion—in one case with a false membrane—in all, the divisions of the tubes were somewhat dilated.

D. A. remarks that—"in the treatment of this stage of the complaint, no time should be lost in the application of remedies; the approach to a fatal termination is rapid, and nearly the same promptitude is necessary here as in croup. Leeches are too slow in their mode of extracting blood, to be of effectual service." He has, however, been much satisfied with the result of the prompt and bold extraction of blood by cupping, followed by calomel and antimony, or James's powders in small doses, repeated at short intervals, until the symptoms above detailed give way to others less distressing. Secretion of mucus then takes place, he thinks, and the adhesive membrane is absorbed or thrown off by expectoration—the breathing becomes less laborious—and the lips assume a more natural hue. More blood, he observes may be taken in these cases, than we would be led to consider requisite or safe under other circumstances.

We do not deem it necessary to make many remarks on the above paper. We believe from some observation, that the foregoing appearances of hepatization will be generally found in the lungs of children who have been carried off by violent hooping-cough. And however we may dispute about the terms inflammation, congestion, or hepatization, the practical conclusions to which we come at last are these—that in some cases of hooping-cough, there is an accompanying or supervening condition of the lungs, which adds greatly to the danger and difficulty of the case, and requires prompt and decisive depletion to prevent death or serious change of structure in the respiratory apparatus.

We wonder Dr. A. has not alluded to the state of the head in these violent cases of hooping-cough—and that he has no where given any examinations of the brain. Without going so far as our ingenious and talented friend, Dr Webster has gone, in placing the cause of pertussis in the head, we can safely say that we have witnessed very few fatal instances of the disease, where the symptoms as well as the dissections did not shew serious affection of the brain. Indeed we are greatly inclined to attribute the immediate cause of death more to this secondary than to the primary malady. Moreover, we strongly recommend the practitioner to bear this in mind at the bedside of the little patient; and to direct his attention to the relief of the head as well as the chest, by leeches to the temples and behind the ears. We have recently seen three cases, which appeared almost hopeless, rescued apparently from the jaws of death, by repeated leechings of the head. We beg to return our thanks, however, to Dr. Alderson for his communication on this important subject.

Periscope;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

I.

Medical Seed-time. Professional Omnibuses.

The numerous labourers in the fields of medical science are now in full employment; thanks to the non-introduction of steam and machinery among the means of infusing sound medical and chirurgical knowledge into the minds of our youth. If the Lord shall vouchsafe his blessing upon the seed thrown into the ground this season, we may anticipate a more plentiful crop than was before reaped on these happy shores.

The list of Ouvriers in this important field, as seen in fifteen closely printed pages of the Lancet—or even in the advertisement sheet of our last number, must appear "prodigious," when we consider that "Modern Babylon" alone, is the theatre of their operations! As the number of teachers, in medicine, as in other branches of knowlede, must bear some ratio to the pupils who present themselves for tuition, it is not easy to account for the astounding increase of both classes, on any calculation connected with the increment of population in this country. We were bewildering our brains with attempts to solve this enigma, when a drive along the New-road, from the Yorkshire Stingo to the Islington Gate, the other day, let in some light on the subject. We think we may safely affirm that the *traveller*, on this short and rapid journey of two miles or less, runs more risk of life and limb, than between London and Seringapatam, whether the intervening space be passed by land or water! The Insurance Companies should look to this, and enjoin an extra premium on life policies between Paddington and the Bank. The old Stages—five or six in number, instantly reminded us of the medical schools of London, some thirty or thirty-five years ago—while the Omnibuses, flying rather than running along this road, represented very accurately, the omnium gatherum seminaries for medical education now prevailing in Modern Babylon. In despite of the "bodily fear" into which we were thrown, on this journey, lest we should be *run over*, or, at all events, *over-run*, in the "March of Intellect," we had time to remark that many of the Omnibuses were proceeding at a rapid rate, and with every badge of *external* decoration and triumph, although a peep into the interior of some of them, disclosed to us a sad vacuity! Still, with every allowance for bad fares and bad times, there can be no doubt that the number of passengers along the road above-mentioned, has been quadrupled during the last ten years, and that without a corresponding increase of the population. The unavoidable inference is, that the Omnibuses have *created* passengers.

We think that, by a parity of reasoning, the prodigious increase of medical schools—or as they may be called, Medical Omnibuses, has been productive of an increase in the number of medical passengers along the path of professional education.

It is not our intention to enter into a categorical delineation of the medical Omnibuses of this Metropolis—a cursory glance at a few of the principal will be sufficient.

1st. A highly respectable Stage has taken in fares for nearly a century, at

Hyde Park Corner. It is called the ST. GEORGE, and was long celebrated as a favourite vehicle of the renowned John Hunter. Although a thriving concern, it was lately deemed advisable, in accordance with the "MARCH OF INTELLECT," to break it up, and replace it by one of the most splendid OMNIBUSES which now grace the Metropolis. As it never leaves the vicinity of the parks and the palace, it always enjoys *fresh air;* and, as the majority of the proprietors are "learned Thebans," from Oxford and Cambridge, it is the most *Aristocratic* Omnibus in London. The passengers, who are denominated, "par excellence," WEST-ENDERS, are of a very superior description, and look down, with some degree of contempt, on their cockney compatriots.

2d. The "MIDDLESEX OMNIBUS" has never been a very lucrative speculation. As it does not carry its passengers the whole length of their journey, it is obliged to employ certain "branch coaches," and even flys, which occasion some loss of time, and considerable inconvenience. A proposition was lately made to incorporate it with a new and popular Omnibus, got up by a JOINT-STOCK COMPANY, in the neighbourhood; but there was a leaven of aristocratic blood in the proprietors of the old vehicle, which repelled the proffered alliance—much to the disadvantage of both concerns!

3d. The "POPULAR OR UNIVERSAL OMNIBUS," to which allusion has just been made, was built on a broad foundation, uniting both learning and science, under the auspices of a celebrated "SCHOOL-MASTER," and a noted "MECHANIC," who were, alternately or conjointly, to drive the machine. The cap of liberty—at least "liberty of conscience," surmounted the gorgeous receptacle; but the immense number of proprietors, who naturally claimed a voice in the direction, proved that "in multiplicity of counsels" there is *not always* wisdom! The "Chamber of Deputies"—like some other Chambres, is by no means popular—and an OMNIBUS constructed of excellent materials, and calculated to accommodate an unlimited number of passengers, has not, as yet, made much return of profits to the shareholders. If democracy, like tyranny, does not carry within itself the principles of dissolution, the "UNIVERSAL OMNIBUS" may yet prove one of the most profitable speculations—for the public if not for the proprietors—which Modern Babylon has hitherto engendered. There is a link wanting in the chain of its appointments—perhaps more than one link—which may prove fatal, if not soon supplied. The want of those perpetual or free admissions for life, purchaseable at other offices, was a sad error in the proprietors. Many people like to have the liberty of free travelling, though they never go beyond their own firesides! *Verbum sat.*

4th. In a very opposite and different quarter of this wide-spread Metropolis, near the banks of FATHER THAMES, and amidst the din and bustle of countless multitudes, rushing to and fro, like the tumultuous waves of a troubled ocean, stands one of the oldest constructions of the kind in this country. It was originally set up by Monks, for the conveyance of bigotted pilgrims to the shrine of THOMAS A BECKET at Canterbury, and thence received the name of the ST. THOMAS, which it still retains. Subsequently it was converted to a much more useful purpose, as a vehicle for sick and wounded of every description, whether booked for the PORT of HEALTH or the banks of the Styx.

As there will always be rivalry in the most pious pursuits—even in the building of churches and the lighting up of the intricate road to heaven, so ST. THOMAS was destined to see a formidable competitor set up directly opposite to him, in the very same street. There was more wisdom in those days, however, than in ours. The two companies soon coalesced, and a colossal DOUBLE COACH or MEDICAL DILIGENCE entitled the UNION, was the result. It drove a most lucrative trade for centuries, and in this prototype of modern OMNIBUSES, might be seen daily taking their seats for a drive to the temple of fame and fortune, a Cheselden and a Pott—a Cline and a Cooper—a Babington and a Curry, *cum multis aliis* But perpetual unanimity is not to be ex-

pected on earth. Only a few years ago by some mismanagement or negligence of the drivers, one of the wheels of the UNION went into a rut, and the overloaded vehicle parted right in the middle! Varous *skilful* engineers and architects exerted themselves to *re-unite* the two bodies—but all in vain. There was no alternative but that of running the two coaches separately, and with distinct interests. One advantage or accommodation, however, was still left open to the public. A passenger who booked himself at either office, was entitled to go by whichever Omnibus he pleased—or, if he had the power of dividing himself into two halves, as the original UNION had done, he might travel by the two vehicles at one and the same time.

5th. The last of the great professional Omnibuses which we need notice, takes its stand near SMITHFIELD Market, and is one of no mean note. During the first quarter of the present century, it attracted an immense number of passengers, chiefly on account of a humorous and eccentric DRIVER, whose jibes and jokes afforded infinite entertainment to the medical ELEVES of BARTHOLOMEW-CLOSE, Cock-lane, Little Britain, Falcon-square, Barbican, Silver Addle, Saffron-hill, Cow-cross, Grub-street, Swan Alley, Wilderness Row, Moorfields, and numerous other localities well known to fame—or at least to ILL-FAME. The merry coachman has now retired; but he has left several successors, who conduct the OMNIBUS with considerable skill, and we believe it is one of the most productive concerns of the kind in this metropolis.

Besides these regular and established OMNIBUSES for the conveyance of medical passengers, there is a swarm of minor vehicles—vans, flys—go-carts, &c. which may be seen plying for fares at the corner of almost every street in this great city! How the proprietors contrive to pick up a livelihood, is an enigma to all but themselves. It is true they go somewhat under the established fares, and many of them profess to take their passengers through intricate lanes and alleys, by which the journey is said to be greatly shortened. But then it is notorious that some of them annually break down, to the loss and danger of their inmates and outmates—while others, in the search after near-cuts, arrive at the goal much later than the regular stages.

II.

ACTION OF COLD ON THE LUNGS.

M. FLOURENS, the celebrated French experimentalist, has been endeavouring to dedetermine the effects of cold and warm air on the lungs. We shall glance at these experiments. Birds were selected as the subjects. A young one was suddenly exposed to a severe and continued cold temperature. A great oppression of the chest was soon evident—the breathing was laborious, the bird refused food and drink, and died in a few hours of acute pneumonia. On dissection the lungs were found to be red and gorged with blood.

Other experiments were made, where the cold was gradually applied, and several times interrupted—in short, the animal was exposed to considerable atmospherical transitions. In these cases, chronic inflammation of the lungs was the result. On dissection the organ was, in some places, hepatized—in others, infiltrated with pus. In a third series of experiments, M. Flourens confined several young chickens in a mild and warm atmosphere—and exposed an equal number, from the same hatch, to all the atmospherical variations of the season. The whole of the former remained free from disease—most of the latter fell victims to pulmonary phthisis. In a fourth set of trials, several young chickens that had been exposed to atmospherical variations, and began to exhibit the signs of pulmonary disease, were placed in localities where the temperature was mild and kept uniform. The greater number of them regained health though very slowly. The lungs of these, on examination, presented some small and

flattened vesicles, in which were minute black points. From these experiments the author concludes first, that cold has a direct and special action on the lungs, productive of acute or chronic inflammation, according to its intensity, and the suddeness of its application—secondly, that a mild and uniform heat prevents the invasion of inflammation and of phthisis—and, in many instances, removes these diseases after having commenced.

It is hardly necessary to remark that these experiments, provided they are correct, and the inferences just, only quadrate with an almost universal opinion in the community at large, and even in the medical profession—namely, that pulmonary diseases are chiefly owing to the cold and variable climate of Britain and similarly situated countries—and that the grand means of prevention or cure consist in migrating to warmer skies, or in keeping to a regulated temperature at home. It is probable too, that the opinion so generally diffused, is not without foundation in truth. The difficulty is, to find a climate where the air is mildly warm in the degree of its temperature, and free from sudden vicissitudes. We have perambulated a good deal over the surface of this earth, and few indeed are the localities where this happy combination of mildness and uniformity is to be found! Between the Tropics, we have, no doubt, a steady range of temperature for the greater part of the year; but that range is too high for invalids in general; laying aside the difficulty of the voyage, and the want of comforts when beyond the seas. In those countries on the Continent, so long celebrated for their anti-phthisical influence, there is any thing but a steady range of atmospherical temperature. If we look to fair Italy, we shall perceive that this boasted country is very unfavourably situated for steadiness of climate. With its feet resting against the snow-clad Alps, and its head stretching towards the burning shore of Africa, it is alternately exposed to the suffocation of the SIROCCO from the arid sands of Lybia, and to the chilling Tramontane from the Alps or the Apennines. From the relative situation indeed of these two chains of mountains and the African sands, it would not be an exaggeration to say that, almost every breeze, in Italy, comes over a volcano or an iceberg—and consequently we are alternately scorched by the one, and frozen by the other. If it be said that these exorbitant vicissitudes are very *infrequent*, as compared with atmospherical transitions in our own climate: to this we reply that, they are so much the more dangerous. The limitation of the range of atmospheric variation, and the *frequency* of its occurrence, are the very best protections against the deleterious effects of thermometrical, barometrical, and hygrometrical transitions. By this frequency of occurrence, we become *inured* to the atmospherical changes; whereas the long intervals between rapid and intense degrees of heat and cold, drought and moisture, in Italy, deprive us of the protecting influence of habit.

Sir Humphry Davy, who travelled more in the character, and with the qualifications of a philosopher than of a physician, would persuade us that the climate of Italy is a Paradise.

"In the mild climate (says he) of Nice, Naples, or Sicily, where, even in winter, it is possible to enjoy the warmth of the sunshine in the open air beneath palm trees, or amidst the ever-green groves of orange-trees, covered with odorous fruit and sweet-scented leaves, mere existence is a pleasure, and even the pains of disease are sometimes forgotten amidst the balmy influence of Nature; and a series of agreeable and uninterrupted sensations invite to repose and oblivion."*

Yes! but when we come to be startled from this bed of roses by the SIROCCO or the TRAMONTANE, we find, to our cost, that the longer the series of agreeable sensations, the more susceptible do we become to the deleterious influence of the enormous transition of the climate. A female writer

* Consolations of Travel.

has drawn a more accurate picture of the delightful climate of Naples than the late President of the Royal Society.

"In Rome and its surrounding deserts, every thing depicts the death of Nature. In Naples and its environs, all evinces her vigour and activity—*an activity that preys on itself—a feverish vitality that consumes while it brightens. The air is fire, the soil a furnace. Sunbeams bring death! And the earth when struck sends up burning vapours.*"*

But, as many months may not elapse before we have an opportunity of more fully exposing our views respecting the effects of an Italian climate on health and disease, we shall drop the subject for the present.

III.

MR. GEOGHAGAN ON HERNIA.

IN the year 1811, Mr. Geoghagan, a surgeon of some eminence in Dublin, published some observations on strangulated hernia in the Edinburgh Medical and Surgical Journal, in which he advocated the propriety of cold applications, bleeding, and other means, before proceeding immediately to the taxis—on the principle, or, at least, the hypothesis that inflammation was the cause of the stricture or strangulation.

"The surgeon (says he) who is impressed with the notion, that he is to cure *inflamed hernia*, will never place his patient on his head, and toss him about; such practice may increase, but cannot abate the tumefaction, which is the *sine qua non;* he will not attempt to push it by force through an aperture which bears no proportion to its dimension. No: he will proceed as in all cases of visceral inflammation, enjoin composure, and hold firmly in his view, that UNTIL THE OBSTRUCTION IN THE INTESTINE, which is the effect of inflammation, is removed, its replacement will not cure, and ought not to be attempted. He will return the hernia after the inflammatory stage, when it can be done with safety, as curative of hernia, but not of strangulation, as it is termed. That the operation has very often terminated fatally, although less frequently than formerly, must be acknowledged. The cause assigned for this termination has generally been, that it was performed too late, to which I assent, in a great measure; but I particularly attribute it to a mistaken view of the disease, and the practice founded upon that view. It is represented as if entangled, and to be disengaged by jolting the entire body, and forcing with the finger and entire hand, &c. &c. which is by no means calculated to remove the contents (although it does so sometimes per accident) and must aggravate the symptoms so as to render future operation unavailing. I consider the jolting as improper as it would be in enteritis. The French surgeons succeed more frequently than we do, which is attributed to operating early: I attribute their success to bleeding, which they carry to great extent, and to their avoiding manual efforts very much. Dessault forbid them altogether; indeed their chief reliance is on bleeding. The many cases recorded, my own experience and view of the disease, warrant me in believing, that if the hands were not applied, but strict attention paid to composure and position, and bleeding particularly attended to, that the operation would be less frequently necessary and oftener successful. I conduct the manipulation in the manner an elastic bottle or a bladder is emptied when administering an enema. It is last in my order of treatment before the knife; first with every one else. The representation of all our modern writers, that the gut is girt as if bound by a cord, strongly opposes their own practice, as to the taxis, by supposing an immoveable state, which every touch of the fingers must inflame, and still further enlarge, whilst the indication is to diminish."

More recently Mr. G. has published a letter to Mr. Abernethy on the same subject. In this letter he reiterates his conviction that the strangulation consists in an "impervious gut, *pro tempore*, caused by

* Lady Morgan.

inflammation, confining the contents, which, being highly pungent, and stagnant, greatly aggravate the symptoms." The usual pressure of the tumour so inflamed against stiff tendinous borders, he observes, irritates the gut, favours derangement of structure, and produces adhesion, thus affecting permanent obliteration of the tube, when this state has continued long.

IV.

TRIAL OF CAPTAIN MOIR.

DR. VENABLES has put forth (in the Medical Gazette) a rather elaborate and sharp series of medico-legal commentaries on the late memorable trial of Captain Moir. It is but too notorious that, when medical men get entangled in forensic questions, they generally come out of court second best. Even if an individnal happens to acquit himself with ability, it is almost certainly at the expense of some of his brethren, and consequently at the expense of the profession generally. Whenever a question of medical jurisprudence is mooted in a court of justice, each side may command as many opinions, at direct variance with each other, as they choose to issue subpœnas for—the result of which is, and must be, a degradation of the profession itiself, in the eyes of the world. It is not with doctors as with lawyers:—the latter are paid for making black appear white; and their contradictory sentiments are looked for as efforts of ingenuity in the cause of their clients. But, when two medical men offer the most dissimilar evidence upon matters of science, the natural conclusion drawn by the public is, that there is no science, but mere conjecture in the case!

The rare example of unanimity among the medical witnesses, in Captain Moir's trial, was owing to the circumstance that they were all on one side—that of the prosecution. Had the defendant's counsel called any, there would have been an exhibition of the usual conflicting testimony. Dr. Venables was in attendance, but not called. The series of strictures which he has published on the merits of the evidence and of the judgment of the court, shows that, had he had an opportunity, he would have endeavoured to impugn the one, and alter the other.

Dr. Venables condemns the treatment pursued in the case of Captain Moir's victim, and desires to show that this maltreatment may have modified the result of the wound—that is, that it may have tended to the fatal trismus that caused the patient's death. The gist of the evidence produced by the chief professional witness, is contained in the following passage:—

"I found the deceased at Mrs. Baker's cottage, sitting by the fire. Upon examining him, I found that he was wounded in the right arm, which was much swollen both above and below the elbow-joint, but not at the joint itself. There was a wound on the inner side of the right arm, a little above the elbow, and also one in the opposite direction, a little above the olecranon, as if a ball had passed through; there was a profuse hæmorrhage, but it had ceased. I called for some brandy, and gave the man a little, because he was exceedingly faint; I then applied a piece of linen to the wound, which bled a little while I was there. Before I left I put a tourniquet loosely on the arm, explaining the use of it to the attendant. *There was no bone fractured.*"

The remainder of the treatment we do not think worthy of much notice. The surgeon and those who were called in, found it necessary to bleed for the reduction of excitement—locked jaw ensued—and the patient died. The main ground of censure taken up by Dr. Venables is the exhibition of brandy to a man who had lost a considerable quantity of blood after a gun-shot wound, but who was able to sit up by the fire. We do not mean to approve or even to sanction the procedure in question. It was apparently an unnecessary—perhaps an injudicious, or even injurious exhibition. That it may have accelerated and somewhat increased the subsequent excitement—and

thus caused a few ounces more of blood to be abstracted for its reduction, is not improbable; but that it had any connexion with the trismus which ultimately supervened and destroyed life, we have neither facts nor reasons for supposing. Those who have seen gun-shot wounds, on a large scale, are well aware that tetanus is an accident which no human foresight can predict—and which no precautions can always prevent. It seems to depend much more on idiosyncrasy, climate, season, and circumstances over which we have no control, than on any particular mode of treatment pursued for the cure of the wound. Who then could conscientiously say, or rationally infer, that the exhibition of a little brandy to a man who was faint from loss of blood and agitation of mind consequent on a gun-shot wound, was the cause of the tetanus that supervened after the stage of excitement was over? In the course of the cross-examination, it came out indeed that the surgeon had administered some brandy when the wound was suppurating; and this is severely censured by Dr. Venables. The stimulant may not have been necessary, or even proper then, no more than in the first instance—but to connect this with the locked-jaw that followed, is, in our humble opinion, neither charitable nor just. We cannot, therefore, but think that Dr. V's censures are too severe, and too much in accordance with that general censorious spirit which now pervades the profession, and incites one medical man to worry another, whenever there is the least ground, real or imaginary, for criticism or blame. God forbid that we should endeavour to cloak ignorance, or defend malpractice in our profession; but it is a dangerous office to attribute mighty and fatal consequences to trifling deviations from rules of practice laid down in systematic works—one half of which, or more, are erroneous. Besides, it is almost impossible for people who are not on the spot, to judge of the actual indications which present themselves, from time to time, in any given case, and where the verbal descriptions are quite inadequate to an explanation of the practice which it is deemed necessary to pursue. But we shall leave this part of the subject.

In respect to the final sentence pronounced on Captain Moir by a jury of his countrymen, and approved by a wise and conscientious judge, we are led, upon mature reflection, to believe that it was just and necessary. The act of firing at an unarmed and defenceless creature, like the deceased, without any personal struggle, and without any adequate provocation, was so savage and unmanly, that it deserved the utmost rigor of the law, had the consequence been the slightest wound of a finger. That the ball did not pass through the poor man's heart, instead of his arm, was no merit in Captain Moir, but only the result of chance; for it would be preposterous to maintain that the object was merely to carry away an arm. Captain Moir knew too well the uncertainty of a ball's course, to believe that he could unerringly hit a member and evade the trunk of a man at whom he fired. But even if he was perfectly confident in the perfection of his aim, he well knew that a man might die of hæmorrhage, in a field, without medical assistance; or sink under the effects of a gun-shot wound afterwards. In either case, the cruelty of the transaction called for condign punishment—infinitely more loud than that of counterfeiting a man's signature to put a few guineas in his purse. And supposing for an instant, that the wounded man died from the ignorance of the surgeon who was called into attendance—that circumstance would not, in reason or in law, protect the inflictor of the wound from the full penalty of the final event of the case. Who put the deceased into the power of fire-arms first, and bad surgery (if such there was) afterwards? Captain Moir! We do not conceive that the death of the individual heightened the crime of the defendant, in this case; nor that the mal-practice (if it had been proved) of the surgeon would have mitigated the crime of firing at an unarmed man, who was not even menacing the slightest degree of personal violence

against the aggressor. The only plea which could have been put on the record, with any degree of success, would have been that of insanity. Although this plea was objected to by the prisoner, and abandoned as untenable by his counsel, we are strongly disposed to think that it was not quite unfounded in fact. It has been said that "ira furor brevis est." But we do not ground our conjecture on that. We can hardly think that any man in his sound senses would go out and *deliberately* fire at a man, against whom he had no real grounds of malice. The very argument which he adduced, was a proof of monomania—namely, that not only his house, but his fields were his castle; and that he might put any man to death who approached them without his permission! ! No more insane idea ever entered the brain of an inmate of Bedlam.

V.

COMPRESSION OF THE AORTA IN UTERINE HÆMORRHAGE. BY M. LATOUR.

Case 1. A female, aged 28 years, of delicate constitution, had miscarried in the sixth month of utero-gestation, without any inconvenience, and again became pregnant. In the course of this pregnancy she was seized with pneumonia, and when the inflammation was subdued, the motions of the fœtus ceased, but uterine contraction did not succeed till eight days afterwards. It was not till after thirty-six hours of lingering labour that the os uteri was so far dilated as to authorise the rupture of the membranes. It was found to be a cross presentation—the feet were seized—and a putrid fœtus of six months was taken away. Uterine hæmorrhage ensued—the placenta was extracted. The flooding continued, and the uterus became filled with blood. A deadly pallor ensued, and the patient said she was dying. She was quickly placed horizontal, and M. Latour made pressure on the aorta below the umbilicus, which was easily effected, as the patient was very thin. In a quarter of an hour the hæmorrhage ceased, and the womb was evidently contracting. M. Latour now thought that the compression of the aorta might be dispensed with, and took off the pressure. The patient was kept perfectly horizontal all that day, and next day several coagula of blood came away. The author asks was the arrest of the hæmorrhage owing to the compression of the aorta, or to other causes? He is not positive, but thinks it was attributable to this mechanical measure.

Case 2. M. Latour was called, in company with two other physicians, to the wife of a medical man. In the 5th month of her pregnancy she had been seized with cystitis, to which succeeded a most obstinate vomiting, which lasted two months almost incessantly. About the 7th month of utero-gestation the motions of the fœtus ceased, and with them the vomitings. In two days after this, labour pains occurred—the fœtus was expelled in three hours—the placenta followed—and although the discharge was little more than ordinary, the patient complained that she felt herself sinking. She begged her husband to raise her head, which he had no sooner done than the action of the heart ceased—to beat no more. This case is related by the author to put accoucheurs on their guard respecting position, when females have been reduced by hœmorrhage, or worn down by other diseases previous to parturition.

Case 3. This case, no more than the preceding one bears directly on the subject of the paper, but nevertheless it is deserving of notice.

A female, pregnant for the third time, came under our author's care for uterine hæmorrhage, which had continued for a month, at first trifling, but ultimately almost constant. This hæmorrhage resisted every means employed to check it, and at the close of the fifth month, premature delivery took place. The fate of the second case had made such an impression on M. Latour's mind that he was greatly alarmed for

the safety of his present patient, who was much worn down by the long-continued drain from the uterine vessels. He therefore kept her in a horizontal position, and, as a precautionary measure, made pressure on the aorta. In this instance, however, a phenomenon ensued, which obliged him to relinquish the compression. In the course of a few minutes after the vessel was obstructed by the pressure of the fingers, her face became flushed—acute headache came on, with difficulty of breathing, &c. These symptoms immediately disappeared when the pressure was taken off—and returned when it was re-applied. The author believes that compression of the aorta is not only an important mean of stopping uterine hæmorrhage—but that it would be very useful in dangerous faintings after loss of blood, by distributing the circulation more towards the brain, and thus keeping up vital excitement in that organ. Certainly where the leanness of the individual permits pressure to be made on the great trunk or the aorta, there can be no possible objection to the measure, as it does not counteract or prevent the other and more usual means of relief being put into execution.— REVUE MEDICALE.

VI.

CORONER'S INQUEST.—DR. THOMSON'S RECLAMATION.

"DR. ALEXANDER THOMSON has read with pain the observations of Dr. Johnson, which have evidently been made under a misconception of the evidence delivered by Dr. T. who has this day called to lay before Dr. Johnson the numerous testimonials of approval which he has received from medical men who were present at the inquest on Miss Cashin. Dr. T. trusts Dr. Johnson will publish his answer to the observations. Dr. T. copies a letter which he received from the foreman and jury, on Sept. 2nd.—

"Sir—Allow me in the name of myself and my fellow jury-men, to request your acceptance of our testimony in opposition to the malicious, false and despicable attack made upon you in the London Medical Gazette of last week. We beg you to receive our thanks for your minute and careful examination of the body of the unfortunate Miss C. Cashin, for the patient and clear manner in which you explained to the jury the meaning of every technical term which you employed, and for the unhesitating and open manner in which you answered all questions from whatever person they came, for the deep interest you have taken in this case, and for your whole conduct during the inquest—which we shall not soon forget.

We have the honor, &c."

(Here are the signatures of all the jury and of their foreman.)

Note by the Editor.—Dr. Thomson has submitted to the perusal of the Editor, a copy of the notes which were taken during the first and the second examination of the body of Miss Cashin, and he has no hesitation in saying that had the substance of these notes been correctly given in the news-papers, it would have saved much altercation and discussion in the medical journals afterwards. The following extract will show that there was little or no discrepancy of opinion respecting the state of the the parts, between Mr. Brodie and Dr. Thomsom.

"There was a patch on the back about nine inches long by six broad, irregular at the margin, denuded of cuticle, and of a black colour, intensing towards the centre, and reddening towards the margin. The surface of the sore was hard and dry—the true skin double the natural thickness, indurated and semi-cartilaginous, offering great resistance to the knife. The cellular substance, fasciæ, and muscles were blended into one hard mass, from which they could, with difficulty, be separated by dissection."

Nobody ever doubted Dr. Thomson's education and qualifications, literary as well as professional. We, at least, never doubted them; but we think it is not for the advantage of the public or any of the parties concerned, to go farther into the subject.

VII.

ON THE ABUSE OF ABSTEMIOUS DIET. By Dr. CAFORT.

[From the Mem. des Hôpitaux du Midi.]

IF great mischief is daily done to the chylopoietic visceri by gormandising and ingurgitation, so there is no doubt that some injury accrues from running to the opposite extreme of starvation. Not long ago we presented our readers with an interesting memoir of M. Barras—gastralgia mistaken for gastritis—and we believe that since the theory of Broussais came in vogue on the Continent, great and sometimes irreparable mischief is done by attributing every painful affection of the stomach to inflammation of its coats. The author of the present paper appears to have been one of the sufferers from the gastro-mania of the day, and it may not be uninstructive to glance at his own case.

Being in Paris in the year 1824, he became affected with "chronic gastritis," which, not being attended to, made progress till the succeeding year. The symptoms under which Dr. Cafort laboured were as follows:—"loss of appetite—pain in the epigastrium augmented by walking, especially if the foot struck against a stone—mouth pasty in the mornings—tongue red at the sides and white in the middle—gums spongy and hæmorrhagic—aphthæ—constipation—fæcal matters in hard balls—great lassitude after food—disinclination to exercise, &c." Towards the close of the year these symptoms were aggravated by some moral afflictions and by great fatigue which he underwent in literary avocations to keep his thoughts from dwelling on his personal grievances. At length being greatly harrassed by the gastric affection, he began to attend to treatment. He first applied leeches to the epigastrium, which gave relief, but did not cure him. He then put himself on a most rigid regimen—namely a small quantity of milk daily, without any other food. After a time he added to the milk some grated potatoe. Under this regimen, continued for two months, the epigastric pains entirely ceased; but the appetite not returning, he dared not to increase his food, fearing a return of the GASTRITIS. He therefore persevered, at the expense of a diminution of strength, emaciation, deadly pallor, and great want of sleep. To these were added distressing palpitations of the heart on awaking from sleep, followed by tendency to syncope. In the course of time, the pulse became intermittent, and the palpitations were daily as well as nightly distressing. He happened to perceive that the intermissions of the pulse, the palpitations, and the tendency to syncope occurred most when the digestion of food was entirely over, and the stomach completely empty. This discovery set him thinking and reasoning on the phenomena of starvation, and he soon was able to explain all the symptoms under which he laboured after the cessation of the gastric pains, upon the principle of defective nutrition. He now began to gradually and progressively increase the scale of his diet, and to vary the quality thereof—and from that moment all the distressing symptoms began to retreat, and the Doctor, during a long tour which he then made, recovered from a disease which he fully expected would conduct him to the tomb.

Now, in the first place, we much doubt whether the disease was GASTRITIS at all. We are quite sure, however, that there was a considerable portion of gastralgia combined with it. In the second place, Dr. Cafort fell into an error in putting himself upon a small quantity of milk for his sole nutriment—and thirdly he fell into a still greater error when he pursued the same system of starvation after the gastric pains had ceased, and consequently after the principal object of the abstemious diet had been obtained. Had he put himself upon farinaceous food with beef tea at the beginning, and gradually increased the scale of sustenance, and the quality of the food, after the epigastric uneasiness had given way, he would have been cured in a short time by diet alone. Had very gentle aperients combined or not with the mildest bitters, and assisted by efficient counter-irrita-

tion, been employed, the recovery would have been still more rapid. The case shows the errors into which the doctrines of Broussais lead our brethren on the Continent. In our own country, indeed, the doctrines of a celebrated gastro-hepatic teacher and practitioner have done still more mischief than the starving system of Broussais! The eternal calomel at night and black draught in the morning, have played their part very effectually, and may well triumph over the Broussaian visions which are more frequently harmless than injurious.

CLINICAL REVIEW,

OR

HOSPITAL REPORTER.

WITH

CRITICAL COMMENTARIES.

VIII.

FOR some years past the impulse to deliver clinical lectures at our great hospitals has been gradually increasing; and the great wonder is, that the example of the Royal Infirmary of Edinburgh, did not long ago render the measure universal. An apparently trifling regulation in the last curriculum of the Court of Examiners of the Apothecaries' Company,—a regulation that seems to have "dropped in," as if by mere accident, upon the train of the code, will prove a greater stimulus to the delivery of clinical lectures than all the declamations, admonitions, and reproaches that have issued from the medical press.

By this regulation, a bonus or premium is not merely held out to those hospitals and infirmaries, metropolitan and provincial, which shall furnish regular clinical instruction in the shape of commentaries at the bed-side of sickness—but, in fact, a ban is placed over the institution that fails to comply. The *additional attendance of three months* in an hospital where no clinical lectures are delivered, is tantamount to a sequestration of the school; for pupils will flock to those establishments which present the greatest quantum of knowledge with the least expenditure of time and money.

But the benefits resulting from clinical lectures will extend very far indeed beyond the mere communication of practical tuition to the class surrounding the lecturer. The teacher himself must now look about him. He cannot now walk the wards, and prescribe in a jog-trot routine of former days. He cannot descant on diseases and their remedies, without carefully observing the history, the phenomena, and the events of the cases themselves—cases that are before the eyes of the class, and which cannot be blinked or distorted to suit the views of the preceptor.

The clinical lecturers have yet another monitor before their eyes—a monitor that combines the double action of spur and rein—the PRESS. The nimble-fingered gentry who now pace the walls of hospitals, will not allow a single syllable that falls from the oracle of the day, to be wasted on the desert air. Every observation will be wafted on the four winds to the four quarters of the globe—there to be weighed and scrutinized, not by raw pupils, who are too ready "*jurare in verbo magistri*," but by practical critics, who can appreciate the sterling metal, and separate it from the dross—and who consequently can estimate the merits of the different labourers in this productive field of medical science.

To form a regular and periodical re-union or concentration of the numerous disjointed

facts and observations which may turn up in our own and in foreign hospitals, a large portion of our PERISCOPE, under the head of CLINICAL REVIEW, has been for some time past, dedicated; but the present state of things induces us still farther to extend the limits, augment the labours, and perfect the organization of the department in question. We confidently appeal to our past efforts, on this point—and we refer our readers to the present number of the Journal, for a specimen of the manner in which our CLINICAL REVIEW is to be conducted in future.

Clinical lectures and hospital reports are as susceptible of analysis, and as open to criticism as any other species of medical literature. In our analyses, we shall pursue our usual system of brevity; carefully winnowing the grain from the chaff—the useful facts from the superfluous verbiage. In our strictures we shall be influenced solely by practical utility—and never by captious criticism. Extempore lectures in the wards of an hospital, should never be rigidly scrutinized, in respect to manner or language—first, because they are delivered, *viva voce*, and without the advantages of study and correction—secondly, because the lecturer may be misunderstood, or, (unintentionally,) misrepresented by the reporter. But the inferences drawn from facts, and the soundness or unsoundness of practice, are fair objects for commentary—and we shall never appeal to the tribunal of the public, without fairly stating the opinions and practices which we criticise, and the grounds for our dissent—without acerbity of language or personal bias.

The system of book-making has long been ridiculous, even to a proverb, both in this country and on the Continent. The same system has crept into hospital reporting on both sides of the channel, though apparently from different motives or inducements. There is no good without its attendant evil. Where reports are paid by the line or page, there is a premium offered on the adulteration of facts with words, and hence the tedious, the useless, the detrimental detail, by which the essential points of a case are buried in verbiage, and confounded among the rubbish of superfluous garnish.

It must be confessed that our continental reporters first set the example of this interminable tautology and circumlocution, and still far outstrip their imitators on this side of the channel. The French reporter subjoins his name, and glories in showing his powers of spinning out a description. Thus, if a man in health receives a stab in the chest, which penetrates the heart and kills on the spot, the reporter commences with a minute description of the patient's complexion, the colour of his hair, the figure of his nails, the degree of corpulence, &c. Then every organ and tissue of the body is carefully dissected and minutely described, so that the organ which received the mortal impression receives not a whit more attention than any one of the viscera not implicated in the cause of death! ! Our readers must often have perceived of late that our youthful reporters and practitioners, in this country, are rapidly imitating the Parisian prolixity, and bid fair to exceed them in this acquirement in the course of a very few years. It will be our study and our task to dissect away from these bloated reports, all superfluous and unseemly garniture—and, as a matter of curiosity, we shall occasionally exhibit, in contiguous columns, the licked and the unlicked bears. These comparisons will illustrate the utility—almost the necessity, of a manufactory for refining the rough materials of medical literature, and casting the purified metal in moulds that may be more sightly to the eye, and more adapted for circulation. An illustration or two, taken at random, will place the utility of our proposal in a clearer point of view than many pages of argument.

IX.

EDINBURGH SURGICAL HOSPITAL.

FISTULA IN ANO.

Report.

"James Trainer, æt. 38, from Leith, recommended by Dr. Kirk, was admitted on the 25th of June. On the left side of the anus there is an induration of the integuments and subjacent parts, in the centre of which there is an opening which discharges matter. A probe introduced at this aperture passes up a winding sinus, which opens into the gut about an inch from the verge of the anus, at a different part of the circumference. He complains of pain, which prevents him from sitting, and which is particularly distressing when he goes to stool.

Two months ago, he experienced a difficulty in evacuating the rectum, and felt as if there was a lump on the left side of the gut, which accasioned great pain when it was subjected to pressure. Poultices were applied for a fortnight; matter was discharged into the gut, and the pain abated. A few days afterwards, he felt an external swelling, which was poulticed and opened by Dr. Kirk, who, recognizing the nature of the case, advised him to repair to the Hospital, where he could have more attention paid to him than at home.

I divided the septum on the 26th, and he was dismissed cured on the 10th of July."*

FISTULA IN ANO.

Analysis.

James Trainer; two months ago had an abscess on the side of the rectum, which remained fistulous, and communicated with the gut by a winding sinus, an inch above the verge of the rectum. The septum was divided, and the patient discharged cured in a few days.

Remarks. Why Dr. Kirk should have sent the above patient to the hospital, or why Mr. Syme should have deemed it necessary to publish it to the world in the 19th century, we cannot even conjecture! We defy any person to point out the minutest iota of interest or utility in the case, or to shew any one *thing* (unless, as Mirabeau asserted, "words are things") in the report, which is not contained in the four or five lines of analysis. We grant, indeed, that neither the report nor the analysis is worth the fiftieth part of the paper on which they are spread. The *illustration* of the manner and matter of some hospital reports is the only useful part of the business, because it will prove a hint to reporters which will not be thrown away. But we must give one more example.

X.

BARTHOLOMEW'S HOSPITAL.

TRAUMATIC TETANUS.

Report.

"Edward Hogan, labourer, æt. 29, admitted into St. Luke's Ward under Mr. Vincent, on Saturday, 25th September. The terminal phalanx of the index finger of the right hand was severely lacerated;

TRAUMATIC TETANUS.

Analysis.

Ed. Hogan (aged 29) had the last joint of the fore-finger jammed in a windlass, the bone being fractured, and the soft parts lacerated.

* Edinb. Journal, Oct. 1, 1830.

the integuments divided along its outer side and across the articulation; the bone fractured, and its ligamentous connexions extensively torn. The middle finger of the right hand was also slightly injured. He stated that the injury had occurred that day, and resulted from the fingers having been caught in a windlass, at which he was employed. His health, previous to the accident, was very good, and the several functions were regularly performed.

Some difference of opinion, we understand, arose as to the propriety of at once amputating the injured phalanx. This measure, however, was not proceeded with, and the common poultice was applied. Under this treatment suppuration ensued, and on Tuesday morning, 28th September, the wound discharged abundantly, and looked well. The bowels were at this time rather torpid. During the day he complained of pain from a 'gumboil,' and difficulty of deglutition; but this circumstance escaped particular notice till the evening, when it had become more severe; the internal fauces were relaxed, and rather tender to the touch, and the back of his neck was stiff, uneasy, and slightly swollen. The sister gave him an alum gargle, and rubbed his neck with the common liniment.

29. Rested badly. At seven, A. M. was suddenly seized with a violent tetanic spasm, assuming the forms of trismus and opisthotonos. After the spasm had continued some time, the house-surgeon was called, who directed a drop of croton oil to be repeated every two hours, till the bowels should be relaxed. From that time several spasms occurred, until Mr. Mr. Vincent's visit at half past twelve o'clock. The wound was then found dry and pale; the countenance anxious; breathing oppressed and hurried; the neck and abdomen tender to the touch; pulse quick and rather full. Croton oil had not operated. Mr. Vincent ordered the patient a warm bath, two drops of Croton oil every second hour till dejections should be procured, and drachm doses of laudanum also, every second hour. The red precipitate to be applied to the wound.

30. Eleven, A. M. Seven drops of croton oil taken, and two common injections administered at alternate periods. Four doses of laudanum used. Bowels scantily moved by the croton oil; injections returned as soon as given. Has slumbered at intervals since the second dose of laudanum. No tetanic spasms through the night, but had one at seven, A. M. and another about ten, A. M. but of less severity than before.

He was in health at the time of the accident—the injured phalanx was not amputated, but poulticed. In three days, suppuration had taken place, and the discharge was copious and healthy. The bowels were torpid, and the patient complained of difficult deglutition, with stiffness and uneasines in the back of his neck. *Fourth day.*—Suddenly seized with tetanic spasm, in the forms of trismus and opisthotonos. Croton oil, in one and two drop doses, was repeatedly given, with scanty effects. The wound was dry and pale. Warm bath—croton oil—four drachm doses of laudanum. *Fifth day.* — The tetanic spasms recurred more or less—the pulse was 120—breathing hurried—deglutition extremely difficult—face flushed — cough, and viscid expectoration — anxiously expressive countenance. Croton oil and laudanum to be continued.—Died at four o'clock.

One, P. M. No recurrence of spasm, pulse 120, full; breathing hurried; coughs much, with viscid expectoration. Complains of thirst, but experiences extreme difficulty in deglutition, and the fluids enter the larynx, exciting great distress. The face is flushed, and the conjunctivæ injected; the tongue clean, but dry; skin warm and moist; less tenderness of abdomen: but the neck still feels stiff, and the lower jaw can with difficulty be relaxed. The sterno-mastoid muscles are prominent and rigid; he trembles much, and his countenance is expressive of great anxiety. Croton oil and injections to be repeated as before, and the same doses of laudanum to be resumed if the spasms should recur.

Two, P. M. Another opisthonotic spasm has just taken place, which lasted three minutes, exhibiting the usual phenomena, but with diminished violence; mental functions completely undisturbed.

When we returned at 4 p. m. he had just expired in a spasm, a few minutes after leaving the warm bath."*

Remarks. We beg the reader to compare the two columns, and say what useful or necessary word, symptom, or phenomenon we have left out in our analysis? That the case presents no feature of either interest or utility, we positively assert. The whole of the facts lie in a nut-shell. A jammed finger produced tetanus—tetanus was accompanied by constipation—and the result was death, without any dissection. What are we to learn from this?—Nothing! We cannot tell whether amputation would have prevented the tetanus—for tetanus follows amputation—and the wound was kindly suppurating on the third day. There was nothing unusual in the symptoms during life—and, melancholy to relate, there was nothing unusual in its final termination! We hope REPORTERS will endeavour to select cases possessing some interest—and thet they will study to convey them to the public in language concise, terse, and expressive. God forbid that we should urge them to imitate those writers who present nothing but the *skeletons* of cases, depriving their *subjects* of all blood, nerve, and muscle —thus wrapping themselves in obscurity, while they are aiming at brevity.

dum brevis esse laboro
Obscurus fio.

No. We only wish to divest our *literary subjects, not* of what the printers call "FAT" —for that is positive leanness—but of that VERBAL PLETHORA, that leaden obesity which encumbers the subject, and greatly checks the "MARCH OF INTELLECT."

* Lancet, October 2d, 1830.

XI.

GLASGOW ROYAL INFIRMARY.*

RETENTION OF URINE.

WE scarcely know a more important subject to the surgeon than retention of urine and its consequences. The mortality in hospitals from cases of old stricture and urinary abscess is considerable, and although the principles of treatment may be ascertained, the practice is too often unsuccessful

* Glasgow Medical Journal, No. XI.

Mr. Cowan, one of the surgeons to the Glasgow Infirmary, has published some cases of retention of urine in a report of the cases under his care from November 1, 1829, to May 1, 1830.

Case 1. M. D. æt. 60, admitted with great distention of the bladder, stillicidium urinæ to some extent, pain in the back and loins, faintness, and anxious countenance. He had experienced some difficulty in making water for six months, but since intoxication five days previously had been unable to void it. For two days it had been drawn off, but during the last three, the surgeon had failed in introducing the catheter.

A full sized catheter was passed into the bladder, and ℔iij. of urine evacuated. By the warm bath and introduction of the catheter thrice daily, the bladder regained its tone and the patient was dismissed. The middle lobe of the prostate was enlarged and had occasioned the obstruction.

Case 3. J. M., ætatis 30, admitted February 15. Had gonorhœa four years ago—retention of urine, removed by the catheter, six months ago, and since that, difficulty of making water—complete retention after intoxication two days ago. On attempting to pass a catheter, blood only has been discharged. Has at present retention, pain above the pubes, and stillicidium urinæ. An instrument passes as far as the bulb, but beyond this it enters a false passage and occasions hæmorrhage.

A bougie was introduced as far as the stricture, and kept firmly in contact with it, and a purgative clyster administered. He was afterwards placed in the warm bath, and took ten drops of the tincture of tobacco every hour. In some hours he had passed a considerable quantity of urine, and by the visit on the 18th, he was completely relieved. A full-sized bougie was ordered to be passed down to the stricture thrice daily, and kept for some time firmly applied to it. By persevering in this plan, the stricture was overcome, and a full-sized silver sound having been for a length of time passed into the bladder, he was dismissed cured on the 8th March.

Casa 4. M. D. œt. 56, of broken constitution, admitted Dec. 1, 1829, with prepuce and scrotum much swollen; hard, painful swelling in right groin and round root of penis; incessant desire to make water and involuntary discharge of it in some quantity; great distention of the bladder. The patient has much tremor, pulse 120, tongue brown, diarrhœa and epistaxis. Has had stricture for sixteen years, a rigor six days ago. The catheter, about three inches from the orifice of the urethra, passed into the tumor at the root of the penis, from which urinous pus was discharged. About an inch anterior to the anus, the catheter was stopped by a small hard tubercle distinctly felt in perineo. Here an incision was made down upon the end of the instrument, a full sized catheter introduced, and the tumour divided. The membranous portion of the uretha behind it was then opened, and a female catheter introduced into the bladder, when a great quantity of very fœtrid urine was drawn off with immediate relief. The abscess at the root of the penis was laid open, and the penis and scrotum freely scarified. The patient died on the 26th.

On dissection, the abscess was chiefly on the right side, and extended over the abdominal parietes nearly to the umbilicus. Its parietes were sloughy; the opening into it from the superior surface of the uretha ragged and sloughy also, the corpora cavernosa penis destroyed, and no remains of stricture to be discovered. The bladder was not contracted, nor the prostate gland enlarged.

In the first of these cases, in which the prostate gland was enlarged, there can be little doubt that the failure in the hands of the first surgeon arose from employing too small or too short an instrument. In cases of this kind the instrument should always be full sized, long, and as Mr. Hey has observed, tolerably curved at the extremity. Indeed as a general rule, we should employ a large instrument in preference to a small one in all cases whatever.

In the second case, as the stream of urine was, before the retention took place, as large nearly as a crow-quill, it was conceived that the retention depended partly on a spasmodic stricture, superadded to the mechanical obstruction. As the retention had existed for two days, the necessity for relieving the bladder was great; but on introducing the catheter, it was discovered, what indeed was inferred from the repeated hæmorrhage before admission, that the urethra had been lacerated by the attempts at introduction, and that one or two false passages existed. It was therefore deemed prudent not to continue the attempts at catheterism, but to trust to other means, which had been found successful in other instances.

When a catheter is carried down to a stricture, and kept in strict contact with it, a discharge from the urethra takes place, and when this has been aided by the warm bath, purgatives, and the use of tobacco tincture, in almost every case a cure will be effected. In cases similar to the present, the practice has invariably succeeded with me, and is to be preferred to repeated attempts to pass the catheter, where laceration of the urethra has been produced by former efforts.

Mr. Cowan thinks the third case of urinous abscess remarkable for its situation, but we have several times seen it extending over the pubes to the parietes of the abdomen. Mr. Cowan has operated twice in retention of urine, and each time has opened the urethra, and passed from the incision a small female catheter into the bladder. Sir Astley Cooper, as our readers are aware, maintains that puncturing the bladder for stricture of the urethra or enlargement of the prostate is unnecessary and unwarrantable. We have witnessed, however, the dissection of cases of old stricture, in which it would have been utterly impossible to have opened the urethra behind the obstruction, in consequence of the inextricable confusion occasioned by false passages and inflammation.

II. NEURALGIA AND TUMOURS OF NERVES.

After amputation and after injuries the nerves sometimes swell and form small tubercles, which at times are acutely painful, especially on changes of weather. But slight or severe operations in very irritable persons, and particularly in young females, will give rise to painful affections, which appear to depend more on a hysterical or nervous habit, than on organic changes in the nerves. Thus the painful affections in the arms of young women, so frequent after venesection, are in nine cases out of ten altogether unconnected with wound of the nerve, though the contrary is vulgarly imagined to be the case. The following would seem to be an instance of this kind.

Case 1. Mr. Cowan amputated the forearm of a girl, twenty years of age, at the secondary period, for an extensive wound by machinery. The stump healed, but she then became affected with excruciating attacks of pain in it, extending up the arm, generally commencing at 6 o'clock in the morning and evening, and lasting for some hours. The pain was excited by pressure on the stump at two particular points. She was cured by quinine in full doses, and a relapse shortly afterwards was likewise treated with success in the same manner.

Now it is not improbable that, had this young woman never undergone an operation at all, she would have suffered from some other form of those hysterical pains which are the heritage of her sex. But it is certain that injuries, however inflicted, give a greater disposition to these affections, and determine the part which the malady more especially attacks. In almost all the cases which we have witnessed of hysterical pain in the knee or breast, the patient has referred the origin of her complaint to a blow, real or imagined. The next case is of another description.

Case 2. J. R., æt. 36, admitted Jan. 19, 1830, with a small tumour the size of a bean, a little above the left superciliary ridge of

the frontal bone towards its inner angle. It is freely moveable, and the seat of severe throbbing pain, extending across the forehead and over the scalp, excited by stooping, coming on in a paroxysm at nine o'clock in the evening and continuing till day-break. The pain prevents sleep. He first observed the tumour when about the size of a pea some years ago, and attributes it to wearing the Scots Greys' helmet. He has had the paroxysms regularly every night for these last twelve months, but latterly they have much increased in severity. Mr. Cowan gave a trial to quinine, but it failed, and on the 23d he removed the tumour by the knife; it was firm in its texture, and appeared to be an enlargement of the nerve, but of this Mr. C. speaks with diffidence. The patient was dismissed cured on the 26th, and remains well.

Case 3. J. R. æt. 22, admitted Nov. 28th, with a large hard, moveable tumour, occupying the posterior part of the lower third of the left thigh, and the upper part of the popliteal space. It presses out the hamstrings laterally, but is unattached to the integuments, which merely display a few enlarged veins. The tumour is devoid of pain, except when pressed laterally or downwards upon the femur, when acute pain is felt, succeeded in a few seconds by an aching on each side, and on the under surface of the heel, from which at intervals darting pains proceed to the toes and dorsum of the foot. These latter are felt independent of pressure on the tumour. The pains are so severe at night that he constantly maintains the erect position, and his sleep is broken by troubled dreams. He has lost flesh, and the appetite is bad. The tumour was first noticed five years ago, the severe pain in the foot commenced nine weeks ago.

During his continuance in the hospital various means were tried without relief. Opium, iodine, leeches, blisters, quinine, were all unsuccessful. The extirpation of the tumour was "out of the question," the patient would not submit to amputation, and on the 27th of January he left the house. He returned in the course of a month, the disease having increased in severity, and about the middle of May the limb was amputated. Mr. Cowan examined the tumour after it was placed in spirits; it was formed by a dilatation of the structure of the tibial nerve which formed the external covering, but internally it seemed wholly to consist of fibrine, separable with ease from its nervous sheath to which it was unattached. The patient died three weeks after the operation with symptoms of affection of the chest.

Mr. Cowan observes that this was an example of the disease *neuroma*, a term first applied by Odier, of Geneva, to tumours formed by diseased enlargements of nerves. A paper on the subject, by Mr. Wood, president of the College of Surgeons of Edinburgh, will be found in Transactions of the Medico-Chirurgical Society of Edinburgh.* We have seen one case of tetanus and heard of another, in which wound of a nerve produced a kind of knot or ganglion upon it, that appeared to be the cause of the tetanic symptoms. But this is a different kind of case from that related by Mr. Cowan.

III. HYDRO RACHITIS.

Case. J. B. æt. 18 months, admitted Jan. 7th, 1830, with a pendulous tumour the size of a hen's egg, between the base of the sacrum and posterior superior spinous process of the ilium, and attached by a firm round pedicle, about three inches in diameter. The tumour is covered with skin unnaturally thick, particularly at its root, and is ulcerated on its surface from the friction of the clothes; it is painful on pressure and devoid of fluctuation; no irregularity of the spinous processes; fontanelles closed; child plump and healthy, and retaining full command of its lower extremeties. When born, the tumour was the size of a hazel-nut, and of bluish colour; it has latterly increased.

Doubts were entertained respecting the

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* Vol. III. Part II.

nature of the case, particularly whether it was or was not a case of spina bifida. On the 11th, it was punctured and some serous fluid discharged, after which the large fleshy portion of the tumour was removed by the knife. These arteries of magnitude required to be tied, and in a minute or two a discharge of serum was observed from a small opening, in structure resembling a vein. This opening communicated with the spinal canal. The lips of the wound were brought together with plaster, and compress and bandage applied. The tumour weighed three-fourths of an ounce, was composed externally of preternaturally thickened skin and cellular membrane, and internally of two distinct very small cysts, communicating through a small opening with each other, and lined with a thin smooth highly polished membrane.

Serum in considerable quantity continued to be discharged, and on the 13th the patient was seized with retching and vomiting, and anxiety of countenance. Mr. Cowan, the surgeon, attempted to secure the spinal opening with a ligature, but failed. The pressure was then carefully renewed, two leeches and a blister were applied to the spine, and on the next day the child was greatly better. A small elastic pad was constructed, and the discharge of fluid nearly checked, the little patient improved in appearance, and the wound began to cicatrize. But the mother grew tired of the hospital and removed the child altogether.

"Many circumstances combined to render the diagnosis in this case obscure. Most children with this disease die within one year of their birth, and Ruysch, whose experience was ample, met with one only who attained the age of fifteen months. The age of the above child was eighteen months, his health had been good, as evinced by his general appearance, and in particular by the complete ossification of his skull. No paralytic symptoms had ever existed, and with the exception of the increasing size of the tumour, and its ulceration, little inconvenience had arisen from it. The size of the aperture communicating with the spinal canal was small, and instead, as in many instances, of there being a deficiency of skin over the tumour, whose covering is sometimes merely that derived from the dura mater of the spinal sheath, the integuments of the part were thickened, amply supplied with blood, and formed, independently of the original disease, a swelling of considerable magnitude, so much so indeed, as to render obscure, not only at the consultation, but even after evacuating the contents of the tumour, the nature of the disease.

The error in diagnosis led to the operation, for had the real nature of the complaint been apparent, nothing would have been done except taking such measures as might be requisite for arresting the ulceration of the surface of the tumour, which sooner or later must have penetrated the sac.

The tumour was remarkable too, for being composed of two distinct cysts communicating with each other."

XII.

SURREY DISPENSARY.

SPASMODIC DYSPNŒA CURED BY PURGATIVES.

AN unmarried female, aged 22 years, was admitted on the 22d of August, under Dr. Whiting. Eight years previously, during convalescence from fever, she became subject to hysterical fits, recurring regularly at stated periods, up to the time of admission. Four years previous to the said admission, she was attacked with the disease for which she now sought relief. She had laboured under obstinate constipation. Being under a paroxysm of the disease at the time of admission, the following phenomena were noted by the reporter, Mr. Grey:—

"All the muscles employed in breathing are thrown into violent spasmodic action; the shoulders are forcibly elevated at each inspiration, and cannot be restrained by the strongest pressure; the nostrils are dilated, the countenance flushed and anxious, and

she has exactly the appearance of one who is out of breath from the most violent exertion. The respirations are about sixty in the minute, the heart beats forcibly, and the pulse is very much accelerated. The fit has generally continued two or three days, sometimes a week, and once even as long as a month. She states that, when it is very severe, she is obliged to support herself in a semi-erect posture by bolsters, sometimes passing two or three days together without sleep; at length, however, she becomes excessively drowsy, falls asleep, and the respiration returns to its natural condition. The paroxysms have usually recurred after short intervals, but even when free from them, the breathing is quicker than natural. She complains during the paroxysms of a distressing sense of tightness across the sternum. The true hysteric fits, above alluded to, frequently occur both during the attacks of dyspnœa and in the intervals. She states that she is enabled to predict the return of dyspnœa by a sense of sickness, and by pain at the lower part of the sternum, with a voracious and depraved appetite. There is, both during the paroxysms and in the intervals, a constant pain under the left mamma, not increased by pressure. She complains also of a dull aching pain across the abdomen, especially just above the iliac fossæ. The bowels are obstinately confined, her motions very infrequent, hard, and passed with much difficulty; she has a voracious appetite; the tongue is clean; the pulse natural in the absence of the fits; the catamenia have been regular from the commencement of her disease, although there is always considerable pain at the menstrual periods.

She had been frequently under medical treatment for this complaint before her admission into the Surrey Dispensary, and had taken almost all the powerful antispasmodic medicines in the Pharmacopœia without any effect."*

The patient was put on a plan of purgation—chiefly powdered aloes and ipecacuan at night, with castor oil in the morning—and this course was pursued, with some interruptions, and a few bleedings, general and topical, from the 22d August to the 21st December, during which she had repeated attacks of the complaint above described. On the last-mentioned date she was discharged cured, and for a period of nine months afterwards, she was able to officiate as cook in a private family, with only a few slight returns of the dyspnœa, which always gave way to purgatives.

With the disposition to give all due credit to the Hamiltonian discipline which the above patient underwent during a period of 123 days, it is just possible that other plans of treatment might have been equally successful in that, or even in a shorter space of time. The usual dose of purgative medicine was seven grains of powdered aloes and two grains of ipecacuan every night, with three drachms of castor oil every morning. These medicines generally acted powerfully, and sometimes distressingly so. Thus, as an example, "15th September, since the last report (on the 11th) the evacuations have been very frequent, watery, and unmixed with scybalæ. *The fit has become more severe.*" It is to be regretted that no examination of the chest appears to have been made, during all this long course of drastic purgation. Did the medical superintendants determine at once that the dyspnœa and hysteria were symptomatic of constipation, and that it was unnecessary to examine into any other phenomena, auscultic or semiotic? We have seen more distressing and anomalous symptoms give way to *moderate* evacuations from the bowels—regulated diet—and powerful counter-irritation to various parts of the surface.—*Verbum sapientibus.*

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* Med. Gazette, No. 148.

XIII.

REGIMENTAL HOSPITAL OF TANNAH.

[J. Bird, Esq. Reporter.]

ISCHURIA RENALIS.

THIS is a very unfrequent, but a very dangerous disease. Many medical men, of great practice, have never once seen it—and when seen, it is not always that a post-mortem examination is obtained.

The patient, in the present instance, was an invalid of the garrison of Tannah, in the East Indies, aged 50, who was admitted into the Regimental Hospital, on the 18th October, 1818, complaining of paucity of urine—not more than a small tea-cupful in the 24 hours. He had nausea; but no fixed pain in any part. When first attacked, several hours before admission, he experienced some uneasiness in the lumbar region, attended with vertigo. He was ordered a dose of castor oil, and afterwards a draught with tinct. opii and nitrous ether. *Second day.* No alteration in the symptoms. The draught several times repeated. *Third day.* The sensorium appeared much affected, as marked by drowsiness, unsettled state of mind, and loss of memory. His eyes were suffused, yellow, and slightly injected—pulse slow and full—some convulsive motion in one of the arms. The catheter was introduced into the bladder, but no urine was found there. He was bled to twenty ounces—took four grains of calomel, with the same quantity of antimonial powder—and then had a blister to the lumbar region. The blood was cupped, and slightly buffed. *Fourth day.* Less affection of the sensorium—no increase of urine—a brisk purgative—blister to the nape of the neck. *Fifth day.* Sensorial disturbance increased—great drowsiness—tongue brown and hard—purgative medicines produced no effect. *Sixth day.* Coma continues to increase—bowels obstinately confined. Died on the seventh day.

Dissection. The stomach was much thickened, and its villous coat very vascular. The liver was enlarged—displaced the intestines, and had elongated the mesentery. The spleen was enlarged to five times its natural size, and was very firm. The colon was contracted throughout its whole extent. The kidneys were enlarged to double their usual size, and were much altered in structure, having the pelves unnaturally small, and the mamillary processes so changed as to be with difficulty recognized from the general mass of disease. The impression on Mr. Bird's mind was, that the urinary secretion must have been imperfect for a length of time. In the head, there was a general serous effusion throughout the substance of the brain, and into the lateral ventricles *

The author is disposed to connect ischuria renalis with liver affection rather than organic disease of the kidneys. We are certainly inclined to attribute this dangerous malady more to a constitutional than to a local cause—more to a general disorder of function in various organs, than to an insulated organic disease, however extensive, of any one viscus. It is one of the various ways in which Nature breaks up the human fabric in despair, when her conservative powers are foiled!

XIV.

REGIMENTAL HOSPITAL, 13TH LIGHT INFANTRY.

FATAL EPISTAXIS.

IN the fifth volume of the Calcutta Transactions, just received, we find the following report by Surgeon Seevewright.

Case. Corporal Ambler, aged 40, was admitted into hospital on the 28th September, 1826, in a state of profuse hæmorrhage from the nose, confined chiefly to the right nostril. It had commenced two hours previously, in his barrack-room, and it appeared

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* Transactions of the Medical and Physical Society of Calcutta, Vol. V.

that he had lost a considerable quantity of blood before he was brought into the hospital. He had been inebriated for several days, and on the 26th September, had fallen down a flight of stairs and injured his head and nose. Wet cloths were applied to the head, and an attempt was made to plug the nostrils. A sense of suffocation prevented the execution of this measure. A dossil of lint, dipped in spirits, was introduced into the nostril, and, for a short time, checked the hæmorrhage. Afterwards a strong solution of the cupri sulphas was used, but produced sickness. The hæmorrhage ceased and returned through the day. The patient passed a quiet night; the hæmorrhage came on fresh on the morning of the 29th, and next day he expired.

On dissection, it was observed that the dura mater adhered with exceeding little tenacity to the skull. The vessels of the brain, at first sight, appeared congested; but, on more minute examination, many of them were found empty, and others containing a colourless fluid. The serous effusion between the membranes and in the ventricles, amounted to upwards of six ounces. The substance of the brain itself was firm. A large coagulum of blood was traced from the left nostril, communicating with the frontal sinus. There was a similar one on the other side. The right antrum maxillare was filled with a clot of blood. The precise source of the hæmorrhage does not appear to have been ascertained.

XV.

REGIMENTAL HOSPITAL, LIFE GUARDS.

ACUTE RHEUMATISM — PERICARDITIS — HYPERTROPHIA CORDIS, &c.

Case. A young recruit became affected with acute rheumatism of severe type in the year 1826, and was received into hospital with the usual symptoms, on the 3d of April. On the 7th of the same month, there was an evident extension of the disease to the chest, as evinced by pain under the sternum, cough, and full strong pulse, &c. These symptoms were relieved by depletion—and on the 15th we find him "gaining ground daily, pulse 76." On the 19th, however, the pulse was 130—the swelling of the wrist subsided—pain at the sternum, with cough upon inspiration. Depletion—and next day the symptoms were moderated. 25th. Pulse 130—pain in the left side, without cough. Leeches, colchicum, &c. On the 27th, intermission of the pulse was first noticed, with pain periodically recurring in the region of the heart. This organ was found to beat strongly under the hand—some incoherency of ideas obtained. After some variations, we find him on the 24th June, convalescent, with a pulse at 60—but still, "the hand applied to the region of the heart produced a sensation as if the cardiac motions were impeded by adhesions of the pericardium, and the heart itself was greatly enlarged." As our good friend Dr. Gregory was assisting Mr. Broughton with his valuable advice at this time, we congratulate him on having such a highly sensible stethoscope in the palm of his hand by which he was enabled to vie with, if not excel any auscultator in the world, not even excepting Laennec!

The man was now put to easy duty, and we are assured by Dr. Gregory that "he continued in good health nearly four years." If a man with a fatal and growing hypertrophy of the heart can be pronounced in good health, the foregoing statement is correct; but we apprehend that "good health" is not the necessary accompaniment of non-complaint. Be that as it may, the man was found, on the 6th of May, 1830, in profound apoplexy, from which he was rescued by very vigorous depletion. Hemiplegia was the sequence of this attack, and, on the 28th July, he was removed, with his regiment to Brighton, by which removal he was rendered much worse. His heart beat strongly—his tongue was loaded and brown—and the pulse was much accelerated. From these symptoms, however, he partially emerged; but still experienced "se-

vere fits of dyspnœa and rapid action of the heart." He sunk into a state of imbecility, and died on the 27th of August last.

Dissection. The usual apopletic cyst was found in one of the hemispheres of the brain, containing two ounces of a thick curdy fluid. On opening the thorax, the heart appeared to occupy a considerable portion of its cavity, with universally adherent pericardium. The right chambers were sound—the parietes of the left chambers were much thickened. The pleura costalis and pulmonalis adhered by elongated bands of coagulable lymph. The liver was granulated. The heart weighed one pound and three quarters.*

Remarks. The above case is chiefly interesting as showing the length of time which an ultimately fatal hypertrophy of the heart will run before death is produced. It also illustrates that now recognized principle in pathology, that hypertrophy of the heart has a strong tendency to induce apoplexy. It is not at all likely that so young a man would have had the latter disease, if the former had not existed for a considerable time. The paper is headed "Pathology of Rheumatism;" but we think this title is somewhat questionable. Hypertrophy of the heart is no infrequent sequence of acute rheumatism—but does not necessarily acknowledge that disease for its cause or origin. We conceive then that a case of hypertrophia cordis is not a discourse on the nature of rheumatism, which pathology of rheumatism must mean. It would not appear very congruous to head a case of enlarged spleen—"Pathology of Fever—or phlegmatia dolens, as 'PATHOLOGY of PREGNANCY.'" Rheumatism is more connected with the etiology than the pathology of cardiac inflammation and hypertrophy.—These, however, are only trifling verbal criticisms. The case itself is well worthy of consideration.

* Analyzed from the Med. Gazette.

XVI.

ST. THOMAS'S HOSPITAL.

PARALYSIS AGITANS.

IN the fourth volume of the Medico-Chirurgical Journal, for November, 1817, we gave a full account of a pamphlet published by the late Mr. Parkinson, of Hoxton, on a peculiar disease, which he denominated "PARALYSIS AGITANS," and which, though little noticed, cannot be very rare, since, at this moment, we have three patients under our care, afflicted with the complaint—two males and one female.

So imperceptible is the approach of this malady, that the precise period of its commencement is seldom recollected by the patient. A slight sense of weakness, with a proneness to trembling, sometimes in the head, but most commonly in the hands or arms, are the first symptoms noticed.—These affections gradually increase, and, at the period perhaps of twelve months from their first being observed, the patient, particularly while walking, bends himself forward. Soon after this, his legs suffer similar agitations and loss of power with the hands and arms.

As the disease advances, the limbs become less and less capable of executing the dictates of the will, while the unhappy sufferer seldom experiences even a few minutes suspension of the tremulous agitation; and should it be stopped in one limb, by a sudden change of posture, it soon makes its appearance in another. Walking, as it diverts his attention from unpleasant reflections, is a mode of exercise to which the patient is in general very partial. Of this temporary mitigation of suffering, however, he is soon deprived. When he attempts to advance, he is thrown on the toes and fore part of his feet, and impelled, unwillingly, to adopt a running pace; is in danger of falling on his face at every step. In the more advanced stage of the disease, the tremulous motions of the limbs occur during sleep, and augment in violence until they awaken the patient in much agitation and alarm. The power of conveying the food to

the mouth is impeded, so that he must submit to be fed by others. The torpid bowels require stimulating medicine to excite them into action. Mechanical aid is often necessary to remove the fæces from the rectum. The trunk is permanently bowed. Muscular power is diminished. Mastication and deglutition are difficult; and the saliva constantly dribbles from the mouth. The agitation now becomes more vehement and constant; and when exhausted nature seizes a small portion of sleep, its violence is such as to shake the whole room. The chin is almost immovably bent down upon the sternum; the power of articulation is lost; the urine and fæces are discharged involuntarily; and coma, with slight delirium, closes the scene.

In a clinical lecture lately delivered by Dr. Elliotson, at St. Thomas's Hospital, a case of this description is introduced as a hook on which to hang some practical and pathological remarks—the case is as follows.

"The patient, F. E., is 38 years of age, and has had the disease eighteen months. He has been accustomed to drink hard at different periods of his life. He is a schoolmaster by profession. It is the right upper extremity which is now affected; but though the right lower extremity is not in agitation, it is occasionally retracted as he walks, — experiences solitary catchings, though it does not shake. The disease began in the head and tongue, but when the right upper extremity was affected, it left the head. This peculiarity distinguishes the present case, that the tongue is one of the parts that were first affected. In general this is not the case, and the tongue is not affected, after many other parts have suffered severely. The head now shakes very slightly only. The affection of the tongue is attended by the following very curious result. Whenever the man attempts to speak, the tongue begins to quiver like the tongue of a serpent; presently a confused murmur is heard, and then suddenly he brings out his words with extreme rapidity; and such is the effort that he cannot stop himself but repeats the few last words again and again. It is a phenomenon analogous to the running which occurs on the attempt to walk. He cannot manage the muscles at all, without a violent effort, such an effort that his tongue gets as it were into a run; the common expression of the tongue running, when we describe a person who makes a good use of it, is really applicable to this patient. I have written down in the case-book, 'Before he can speak he makes a confused and inarticulate murmur, and then speaks rapidily, slurring his words together, and repeating the last words several times. The effort makes the tongue and right upper extremity shake violently.' He sleeps very well, his appetite is good, and in all other respects, except this shaking of the body, he is in tolerable health. Sometimes after a good night's rest he does not shake at all for a few minutes after waking in the morning, but then it is not long before the trembling commences. Any excitement or attempt to do any thing at once, greatly increases the tremors, but by a strong effort he can at length arrest them for a few moments. The only other symptom present is costiveness (he has but two stools a week), and a pain in the head whenever he is anxious."*

Dr. Elliotson informs us that, in many cases, the disease is controllable by art—"it ceases on active treatment." In young persons he has often cured it—and, in such cases, there has been great constipation. It has so happened that all the people we have seen affected with this complaint, have been advanced in life, and therefore our practice has not been so successful as that of Dr. Elliotson. Yet we have sometimes seen considerable relief produced by medicine. One of the patients now under our care, a music-seller on Holborn-hill, came under our observation about five months ago, and was then so ill that we entertained no hope of doing any good. Regular aperients were prescribed, together with colchicum and bitters. We heard no more of

* See the Lancet and the Medical Gazette for Oct. 16, 1830.

him till within these few weeks, when, being summoned to him, we found him in nearly the same state as on our first visit. But we were rather surprised to learn that, soon after he commenced the remedies above-mentioned, he got so much better that he almost daily went out—sometimes as far as Hampstead. This man has an insatiable appetite, and the indulgence of this appetite has, no doubt, an injurious effect on the complaint. We shall introduce the following remarks of Dr. Elliotson on the treatment.

"If we can ascertain that there is any fulness in any part of the nervous system, or any inflammation, the treatment should consist in bleeding locally or generally, or both—in purging and mercurializing—in employing setons, issues, moxas, &c. If there be nothing of this kind—if there be no reason to suspect fulness or inflammation—if the patient be not of a plethoric habit, and no local pain nor tenderness be felt, then such treatment is, for the most part inefficacious. I would, therefore, not have recourse to treatment of this description unless there was a plethoric habit, or evident marks of inflammation, or fulness in some part of the nervous system; or unless there had been some injury, the effect of which we should necessarily suppose to be chronic inflammation. Almost all nervous diseases, whether convulsive, spasmodic, or paralytic, may arise from, or be dependent upon, inflammation or congestion, or upon some peculiar state which we do not understand. I know of no mode of distinguishing these varieties of the disease, except what I have already pointed out. When we cannot ascertain that the disease has arisen from mechanical injury, and there is no local pain or tenderness, or fulness of the system, stimulants, tonics, electricity, the shower bath, and various remedies—the operation of which we do not understand—iron, sulphate of zinc, copper, nitrate of silver, and in short all those minerals which belong to a class of remedies, each of which do good, and has a peculiar operation on the nervous system, distinct from that of narcotics, perfectly inexplicable — often prove efficacious in this and all other convulsive, spasmodic, and paralytic diseases. The present patient appears to have been both in the St. George's and Middlesex Hospitals, and from what I have learned of his previous treatment I have directed the plan which he is now undergoing. I find that, very rationally and properly, in St. George's Hospital, he had been cupped and bled frequently; that counter-irritation had been produced by means of blisters, so that a copious discharge was kept up from the back of the head and neck; and that he had been kept on low diet. The plan which it was reasonable to pursue in such a case, where the patient was in the prime of life, the habit full, and a blow had occurred—this general and local antiphlogistic treatment, which is often successful in nervous diseases, was fully pursued, but in vain. I find likewise that in the Middlesex Hospital, it having been ascertained that these means had proved unsuccessful after full trial, stimulants and tonics were administered to him—porter, good nourishment, camphor, and various stimulant remedies, and although these did not cure him, this mode of treatment was as fully justified after the former, as the former was in the first instance. As he was of full habit the treatment began with antiphlogistic means, and in failure of them recourse was had to stimulants. Among the various remedies which do good in the diversified diseases of the nervous system, I believe the most valuable, and at the same time the most safe, is *iron*. Upon the whole I have succeeded better with that than with any others, though in epilepsy it rarely does good. I have been much more successful in the treatment of St. Vitus's dance with iron than with any other internal mineral remedies, although their efficacy cannot be doubted. It is far less nauseating and griping than copper; it does not produce the same inconveniencies that arise from arsenic, nor the sickness which results from sulphate of zinc, nor does it produce that blackness of skin which is the effect of nitrate of silver, and the chance of which makes me always unwilling to employ it. Knowing, therefore, the treatment which

the patient had previously undergone, and hearing from him that he was always better the more he was strengthened, I ordered him two drachms of subcarbonate of iron three times a day, and a pint of porter at dinner. He is a superior sort of man, and very desirous of recovery, and I do not imagine that he would deceive me by telling me he was better for invigorating measures, if he were not. It is certainly necessary to remedy the state of costiveness under which he labours, but I do not suppose that purging would cure his disease, though I am perfectly aware that, where there is congestion or inflammation, or an approach to it, purging frequently does cure patients with various nervous disorders. But on the whole I really have been disappointed in the use of purgatives, though I acknowledge their value in various disease of the nervous system. If there be no reason in this case to suppose congestion or inflammation, still the bowels are costive, and that is a state to be remedied, for constipation must make the disease worse. Under these circumstances I have ordered him to take half a minim of croton oil daily, in order to keep his bowels freely open; for though purging him may do him no good, and by debilitating would probably make him worse, yet constipation will be sure to do him harm. There is another reason also why costiveness should be obviated;—the iron would be liable to accumulate in the alimentary canal. The carbonate is a bulky remedy, and if any deficiency of the alvine discharge occurs, it will of course accumulate. I usually administer it in treacle, because treacle has a tendency to keep the bowels open."*

As Mr. Parkinson's pamphlet is now almost forgotten, and perhaps was never in the hands of many of our readers, we shall here introduce a brief abstract of a few of his cases.

Case 1. A gardener, aged 50, remarkably sober and temperate, who had never suffered from rheumatism, pains in the head, or any apoplectic seizure, first noticed a slight trembling of his left hand and arm, after more than ordinary exertion. In the progress of this case, every circumstance mentioned in the preceding history occurred.

Case 2. A man, 64 years of age, casually met in the street, had suffered from the disease about eight or ten years. He described it as having come on very gradually, and attributed it to irregularities in living, but particularly to indulgence in spirituous liquors. All the extremities were agitated; the speech interrupted; and the body bowed and shaken. He walked so entirely on the fore part of his feet, that he would have fallen, had it not been for the assistance of a stick.

Case 3. The subject of this case was also met in the street. He was a man of a remarkably athletic frame, 65 years of age. The agitation of the limbs, head, and whole body, was too violent to allow it to be designated as *trembling*. The body was bowed, and the head thrown so forward as to oblige the man to go on a continual run, and employ his stick every five or six steps, to force himself into an upright posture. The man stated he had been a sailor, and thought his complaint arose from lying on the bare earth during a confinement of some months in a Spanish prison.

Case 4. A gentleman, ætat. 55, who had experienced a trembling of his arms for about five years, had inflammation of the side, which terminated in an abscess, and discharged a quantity of matter daily for two or three weeks, without effecting any alteration in his original complaint.

Case 5. A gentleman was seen at a distance supported by an attendant, who was standing before him with a hand on each shoulder. By gently swaying backwards and forwards, he placed himself in equipoise; and, giving the word, started in a running pace, the attendant gliding before him, ready to receive him and prevent his falling after having run about twenty paces.

Case 6. A gentleman, ætat. 72, has suf-

* Med. Gazette, No. 150, p. 91-2.

fered from the disease some years. Twelve months since, he had hemiplegia of the right side, which was entirely removed in a fortnight, by purgatives, and a blister behind the neck. At present, he is almost constantly troubled with the agitation, but is generally able to stop it for a short period by a sudden change of posture, such, for instance, as throwing himself into a chair. His sleep is much disturbed; he is scarcely able to feed himself; and when he walks, it is with the constant apprehension of falling forwards.

The author is of opinion, that the preceding are all cases of the same disease, differing only in stage and duration.

Reverting to Dr. Elliotson, that talented physician cautions us against confounding paralysis agitans with the tremulous agitations of drunkards. The latter generally affects both hands, and commences or increases on any muscular effort. In paralysis agitans, the circumstances are just the reverse—a strong effort will, for a few moments, suspend the tremor.

XVII

WESTMINSTER HOSPITAL.

FATAL CYNANCHE.

A CASE, under the term of "fatal erysipelas" has lately been reported from the above hospital, but which appears to have been an inflammation commencing about the fauces, producing external inflammation of the face and neck, and ultimately destroying life by disorganization of the larynx.

The patient was a gentleman's valet, aged 27—and like too many of that tribe, addicted to intemperance. He had got wet feet a few weeks previous to his admission (31st March) but felt no inconvenience till within a week of the above date, when his throat became sore, and, on the 29th March, he found it swelled externally under the base of the lower jaw, on the right side—the swelling and redness extending to the ear, the cheek, and the neck. This was the state of the patient on admission. The difficulty of deglutition was considerable—the surface was hot—pulse 110, soft and oppressed—tongue much furred—bowels had been freely opened. An emetic, consisting of six grains of tartrite of antimony and a scruple of ipecacuanha (a large dose, and as we think, an error in the print) was immediately exhibited, after which ten grains of calomel, "to act freely on the bowels," to be followed up by the *liq. ammon. acet.* Dr. Roe ordered twelve leeches to the external fauces—warm fomentations—calomel and jalap. [APRIL 1.] Very low—pulse 120—vomits frequently—the external redness of a paler hue—passed a restless and delirious night—was purged by the powder. To take a tea-spoonful of brandy occasionally--a mixture of decoct. cinchonæ, confect. aromat. and spt. amm. aromat. In the evening the pulse was 140—deglutition very difficult—neck more swelled. A blister to the neck—brandy to be continued. [2d April.] All the symptoms worse—pupils dilated—voice almost extinct—swallowing nearly impracticable—great discharge of muco-purulent matter from the eyes and nose—tongue dry, chopped, and brown—vomiting somewhat subsided. Calomel and rhubarb to open the bowels. After the operation of the powder, the symptoms appeared to be much improved. The pulse fell to 100, and was much firmer and fuller;—but the difficulty of swallowing remained. [April 3d.] Delirious in the night—the external inflammation has quite disappeared without vesication—internal fauces more affected—pulse 136, very feeble—is delirious at times. A blister to the nape of the neck—ten grains of calomel. In the afternoon the physicians ordered him into a warm bath, and to take half an ounce of the decoct. aloes comp. every hour till the bowels are opened. We cannot compliment the accuracy of the reporter in the following prescription.

R. Ammon. carb. ℥j.
Aq. menth. . ℥vj. M. ft *haustus* cujus capiat, ℥ss. 4 tis horis.

The doses of carbonate of ammonia in this mixture were pretty strong (24 grains each) for an inflamed surface. "When the

ammonia draught was administered, the patient was almost thrown into convulsions, by the sufferings which the attempt at swallowing so strong a stimulant excited." The ammonia mixture was therefore diluted, and the patient got some of it down. The vital forces, however, continued to fail; and in spite of brandy, laudanum, &c. conveyed into the stomach through a tube, the unfortunate patient sunk, and expired early next morning.

We are informed that the patient had formerly suffered much from syphilis, both in its primary and secondary stages, and been in the habit of taking opium freely. The dissection is passed over in a very unsatisfactory manner, in the following words.

"The post-mortem examination exhibited a highly diseased state of the larynx, especially at its upper parts, the natural characters of the glottis, epiglottis, and chordæ vocales, being nearly obliterated. A high state of inflammation existed in the pharynx and internal fauces."—*Lancet.*

From the symptoms and the dissection, then, we must demur to the title of the disease—"fatal erysipelas." This malady has enough to answer for, without bearing the blame of what may sometimes be done by cynanche laryngea, and c. pharyngea, of which the above patient died.* It might admit of some question whether the external inflammation characterized, as erysipelas, together with the depressed state of the constitutional powers, did not, in the above case, lead the practitioners too far from the local inflammation about the larynx and fauces, which was working the fatal mischief. It is doubtful whether brandy and ammonia will ever remove that debility which results from a disorganizing local process. The most efficient means of restoring the general strength is by reducing the topical inflammation.

* Some of our own reporters are not free from the sin of misnomering. Thus, in our last number, page 543, under the head of "Westminster Hospital," there is a case of fatal "ulceration of the tonsils," in which no disease nor symptom of disease of the tonsils was exhibited before or after death. The case is interesting, though falsely titled. The patient died of disease of larynx.—*Ed.*

XVIII.

HOTEL DIEU.

CANCER AND ULCERATION OF THE LOWER PORTION OF THE COLON.

Case. A man 31 years of age, of delicate constitution, had enjoyed good health till within a year of admission into the hospital. He then began to experience various painful sensations in different parts of the abdomen, but especially about the hollow of the left ilium. His appetite was not impaired, but his digestion was deranged, and he had frequent attacks of colic. The motions were generally liquid, consisting of bile or mucus—sometimes containing clots of blood. He soon began to lose both strength and flesh, and then a tumour appeared on the left flank, which was both visible and tangible. It was not till after eight months of suffering that this man applied at the Hôtel Dieu for relief. He was then in a state of extreme emaciation and debility—had lost his appetite—and was harassed with diarrhœa. The supra-illiac tumour was hard, and about the size of a man's fist. It was very tender to the touch. It was pronounced to be cancerous—and little doubt was entertained that it was in a state of ulceration. Nevertheless it was determined to employ *pressure* on the plan of Mr. Young in this country, and some ingenious instruments were contrived for effecting this measure. In six or eight days it is asserted that the volume of the tumour was considerably diminished, without any augmentation of the patient's sufferings. The pressure was continued for 15 days, when the tumour ceased to diminish, and became harder, as well as more tender. The darrhœa and emaciation now made rapid progress—fever came on—the evacuations became extremely fetid

bloody, and puriform. Death soon put an end to the patient's sufferings.

On dissection, the stomach was found to be very large, softened, and reddened on its internal surface. The mucous membrane of the small and great intestines was developed in a most extraordinary manner, and of vast thickness. As the lower portion of the colon was approached, this thickening became more remarkable, and changed in fact into a sub-scirrhous condition. The sigmoid flexure of the colon was the seat of the tumour, which, indeed, was formed by the thickened coats of the intestine itself. Externally it was very dense in structure; but internally it was soft, and assumed the fungoid, or encephaloid character. In its centre was a vast cavity with irregular parietes, which had furnished the fetid and purulent discharges during life.

It was but very recently that we met with a true fungoid or malignant cancer of the pylorus in a female about 50 years of age. She had experienced daily sickness after food for more than a year; but the complaint was greatly exasperated by long-continued sea-sickness in the steamer, between Ostend and London. From that time till the day of her death, six or seven weeks afterwards, she was not able to keep any thing on her stomach. Yet she preserved her corpulency till the last. About three weeks before death we examined carefully the abdomen, and perceived a slight hardness in the region of the pylorus, but it was unattended by tenderness. She was seen by Dr. Granville and Mr. Guthrie in consultation, but no remedial measures could stop the incessant vomiting after even the most trifling quantities of fluid taken into the stomach. The argentum nitratum allayed the irritability of the stomach more than any other remedy; but it gave only temporary relief. The patient was worn out by constant vomiting, fever, and inanition.

On dissection, the parietes of the stomach in the neighbourhood of the pyloric orifice, were thickened and indurated; but from the mucous surface of this thickened part a malignant fungoid tumour projected, and blocked up the passage into the duodenum, which would, with difficulty, admit the point of the little finger. This fungoid prominence was in a state of ulceration. The preparation, which is a remarkably fine specimen of the disease, is in the possession of Mr. Guthrie, at the Eye Infirmary. It is not a little remarkable that the fat was an inch and a half in thickness on the abdomen, notwithstanding this long-continued sickness occasioned by an organic disease of the stomach.

XIX.

MEATH HOSPITAL, DUBLIN.

[Drs. Graves and Stokes.]

In the fifth volume of the Dublin Hospital Reports, which we have just received, and of which we shall take ample notice, we find a long and very valuable report from the above hospital, drawn up by Drs. Graves and Stokes. We have selected for this department of our journal, the following cases, reserving the others for subsequent numbers.

Diseases of the Arterial System.

Case 1. P. Magrath, aged 44, of strong habit, was admitted on the 7th Feb. 1829, with paralysis of the right lower extremity. For six months previously he had been exposed to great hardships, and early in December, 1828, became first affected with alternate sensations of heat and cold in the toes of the right foot. These sensations were soon after felt in the leg, accompanied by formication and diminution of power. Pains next supervened—and, in the course of a month, the part became cold, and totally void of sensation. The constitutional symptoms were, prostration of strength, anorexia, and constant thirst.

"On admission his intellects were perfect, and the temperature of the body, with the exception of the affected limb, natural. The pain had extended to the thigh during the night; pulse 96, small and soft. On examin-

ing the limb we found its temperature to be about 58 of Farenheit, and observed some œdema at the ankle and foot. There was complete loss of sensation from the middle of the thigh to the toes; the patient could rotate the thigh slightly, but no other voluntary motion of the limb was possible. The femoral artery appeared like a hard chord; it was painful on pressure, and no pulsation could be felt in the vessel. We further discovered, by the assistance of the stethoscope, that pulsation was wanting in the external and common iliac arteries on this side, while that of the left iliacs was plainly perceptible.

From these observations we came to the conclusion, that the right common and external iliacs, and the femoral artery, were in a state of permanent obstruction, which would account for the state of the limb."

The patient died three days afterwards.

Dissection. "No emaciation; the right lower extremity swollen, and of a purple colour.

The brain, lungs, and abdominal viscera, were carefully examined, but nothing remarkable was observed, except that all these parts were usually exsanguineous. A few crude tubercles were found at the superior portions of both lungs.

The heart presented the left ventricle in the state of active aneurism, with some thickening and opacity of the aortic valves. The ascending portion and arch of the aorta were perfectly healthy, nor could any disease be discovered in the carotid or subclavian arteries, but in the innominata we observed some red patches where the lining membrane was thickened and softened. The descending aorta was healthy to within six inches from its bifurcation; here a slender red fibrinous clot was found stretching nearly to the bifurcation: beneath this clot the lining membrane was of a deep red colour, thickened and soft.

The right common iliac, when viewed externally, appeared distended and livid; the left apparently healthy. On slitting down to the bifurcation, we found that the former vessel was completely plugged up from its origin by a dark clot, which extended to the external and internal iliacs, and also engaged the gluteal and obturator arteries. The same disease was found in the femoral and profunda, and extended to the origin of the anterior and posterior tibial arteries, which vessels, including the peroneal, presented a similar appearance as far as they could be traced.

Along the course of the diseased vessels, the lining membrane of the artery was found soft and thickened. It had a somewhat villous appearance, and greatly resembled an inflamed mucous membrane. In some portions the clot was separated from the vessel by a layer of dark-coloured puriform matter, in others it was adherent. The clot in the tibial arteries was not red, and much firmer than in the femoral and iliac arteries.

In the left common iliac we found the lining membrane of a deep red colour, and the vessel contained some portions of coagulable lymph. The external iliac, and femoral arteries of this side were perfectly healthy.

No disease whatever could be detected in the veins of the affected limb."

A large portion of the vasti and rectus muscles was hardened and deprived of colouring matter. The cellular tissue was œdematous.

Case 2. ANEURISM OF THE ABDOMINAL AORTA. The patient was a locksmith, aged 29, admitted 12th March, under the most distressing state of palpitation, of 3 month's standing.

"He had enjoyed good health until the beginning of November, 1828, when, after exposure to cold he contracted severe pains in the loins, extending towards the umbilicus, and accompanied by a fit resembling convulsive colic. This pain of the loins presented occasional exacerbations, and was then pulsative; he referred the pulsations to the left illac fossa.

This disease had been treated as rheumatism. Bleeding, both general and local, blistering, the use of turpentine, with other remedies

were tried, but failed to give relief. In about a month he experienced severe pain in the region of the heart, succeeded by palpitation, which has continued to the present time.

Since the commencement of this attack he uniformly experienced relief by lying on his face and right side; he could not turn on the back or left side without great pain."

His countenance was remarkably pale and exsanguious—appetite good—bowels costive—no cough.

"The impulse of the heart was greatly increased, and appeared to be communicated from an extensive surface. This impulse was still further augmented by any change of position, but particularly by turning on the back or left side, when it was felt over the anterior portion of the thorax and in the epigastrium.

Examined by auscultation, the pulsations of the heart were heard over the whole chest. During excitation we could observe a *bruit de soufflet* accompanying the action of the ventricles. Respiratory murmur every where natural."

They came to the conclusion that there was disease in some portion of the descending aorta, and that the morbid action of the heart was consequent on this. The most accurate examination, however, failed to detect any additional disease. Leeches to the loins—low diet—anodynes—occasional purgatives. In the course of a week the action of the heart was completely reduced; but was easily excited by turning on his back.

"On the eleventh day of his admission, a pulsating tumour was detected on the left side, on a level with the last dorsal vertebra. This pulsation was diffused over a space of about two square inches, which was tender to the touch; it was not accompanied by any *bruit de soufflet*, but this sound was audible in the epigastric region. He complained of pain in the tumour, increased by pressure, which also produced a feeling of nausea, and a sensation as if some fluid was ascending towards the chest.

Leeches and ice to the tumour. Use of digitalis.

The tumour gradually increased, but the pain and general distress were so much diminished that the patient left the hospital in the beginning of May. For some time his strength improved, and he lost the exsanguine appearance. He was re-admitted on the 15th of June. About three weeks previously he had attempted to resume his occupations, when he suddenly became much worse.

The tumour was not found to have increased in size, and there was no external lividity, but the pain was greatly increased, particularly at night; he then compared it to a sensation as if the bones of the pelvis were separating. The trunk was now considerably bent to the left side.

On examining the tumour a distinctly double pulsation was observable, the first stroke coinciding with the diastole of the radial artery. Two sounds were also to be heard corresponding to the pulsations of the heart, the first dull, the second clear. These phenomena bore the greatest resemblance to those produced by an hypertrophied heart.

Use of digitalis. Cold applications to the tumour.

The tumour continued to increase. He now complained of great pain during the act of passing the urine; the pain was referred to the lower part of the tumour, and subsided as soon as the act was over. This pain was severe in proportion to the distention of the bladder.

In a short time we observed that the heart was displaced; at first it was found to beat in the epigastrium, the impulse having left the usual situation. In the course of a few days it became feebler in the epigastrium, but could be felt pulsating on the right side, at the sternal end of the fifth rib, and ultimately became fixed in the intercostal space of the third and fourth ribs. Here the sound of its contractions was plainly audible, while in the natural situation they could scarcely be heard.

Soon after this occurrence he again left the hospital and indulged freely in spirituous liquors: violent action of the heart supervened, and on the following day a dreadful fit of convulsions, with pain of the abdomen

and back, came on, during which he suddenly ceased to exist.

His death took place in three months from the appearance of the tumour. Dissection was not allowed."

Some judicious remarks are made on the above and on another case where there was an aneurism of the ascending aorta, which had continued five years, and where there was also the double pulsation. This double pulsation was caused, no doubt, by the "double stroke of the heart thus mechanically communicated to the sac, giving it an apparent double pulsation."

II. TRACHEOTOMY PERFORMED WITH SUCCESS FOR CHRONIC CYNANCHE LARYNGEA. By Mr. PORTER.*

Case. Miles Brady, aged 24, a powerful looking man, admitted into the Meath Hospital, Nov. 28th, 1829, under the care of Mr. Porter.

He suffered from extreme dyspnœa, each respiration being attended with a sibilous whistling sound; the inspirations most laborious; severe exacerbations almost inducing suffocation and occurring chiefly at night. He complained of short husky cough, without expectoration; great soreness of the throat; difficulty of swallowing; and remarkable tenderness on pressing the larynx externally. As far as the fauces could be seen, there was no trace of inflammation whatever. The larynx and trachea moved rapidly upwards and downwards in the neck; the face was flushed and very red; the lips purplish; the forehead covered with profuse perspiration; the countenance inexpressibly distressed; the pulse above 100, small and weak.

As far as the history of the case could be ascertained, the patient had caught a cold about six weeks previously. The existing symptoms had appeared within the week preceding his admission, and had only been urgent during the last two days. He had previously been considered a healthy man.

"On admission he was bled to syncope, and had a bolus containing ten grains of calomel, with orders that the medicine should be repeated three times a day. At half-past 2 p. m. he was again visited, and on entering the hall of the hospital, I could distinctly hear the sound of his respiration. It is needless to repeat here the symptoms that indicate the necessity of proceeding to immediate operation; suffice it to say, that evidently he could not have endured the state of unutterable distress in which I found him for even a few hours longer, and it was almost questionable whether the lungs had not already suffered so much as to render our future efforts unavailing. After some little delay, in order to make the necessary preparations, the patient's bed was wheeled into the operation-room, and the operation performed as follows:—

Having placed the patient with his neck toward the light, and caused his head to be thrown backward as far as possible, I made an incision along the central line of the neck, commencing below near the sternum, and terminating above at the cricoid cartilage. Owing to the shortness and thickness of the neck, this incision was not of sufficient length to afford room for the further steps of the operation, a circumstance that added to its difficulty afterwards. The muscles in front of the trachea were then divided, and in the depth of the incision a vein was opened. The wound was now more than an inch deep, and from its bottom the blood bubbled up, largely mixed with air, and on applying my fingers to the neck immediately above the clavicles, the crackling sensation produced by emphysema was very evident. Having paused a few moments in order to command the hæmorrhage, I proceeded with the operation, and laid bare the trachea at a depth of more than an inch and half from the surface, and having in some degree fixed it by applying the nail of the forefinger of my left hand against the cricoid cartilage, I made a semilunar incision into it, through which a tube, formed of a portion of a gum-elastic catheter, was passed.

In this case the patient did not imme-

* Dublin Hospital Reports. Vol. V. 8vo. pp. 628. Dublin, 1830.

diately experience the relief generally afforded by the operation: the irritation occasioned by the presence of the tube seemed to distress him greatly; he rolled himself about in the bed, looked wildly, and gnashed his teeth. The blood trickling into the trachea occasioned terrific paroxysms of coughing, in which his face became swollen and purple, and he appeared on the verge of suffocation. The tube was forcibly expelled seven or eight times, and this scene of distress continued nearly half an hour, after which he experienced some relief, became calm, and enjoyed a little sleep."

Next day, 29th, the stethoscope indicated bronchitis, and the patient was bled. Calomel continued. 30th. The bronchitis was very intense—he was harassed with cough and difficulty of expectoration—respiration impeded by the inspissated mucus—and the tube requiring frequent removal to be cleaned. He was again bled, and calomel combined with antimonial powder, was ordered. No improvement of any consequence took plack till the 3d of Dec. when ptyalism was established, and he made signs that he could swallow without difficulty—pulse 84, and soft—emphysema still extensive. The bronchitis had disappeared, according to stethoscopic indications. Venesection—calomel and opium. *Dec.* 4. The laryngeal distress continued, notwithstanding the mercurial influence on the system. On closing the wound the patient was unable to breathe or speak. He was again bled, and the blood was found to be inflamed. The other medicines to be continued. *Dec.* 13. There has been little alteration since last report. The smell from the patient's breath is abominably fetid, exactly resembling that in laryngeal phthisis. The mercury has been laid aside since the 9th December. *15th Dec.* On attempting to drink this day, the fluids passed through the wound in the throat, "indicating a communication between the pharynx and larynx." Several symptoms of hectic fever were manifest. *Dec.* 20. A large silver canula was introduced, and seemed serviceable. The hectic symptoms increased, though the stethoscope indicated the non-existence of pulmonic inflammation. Drinks did not *entirely* pass through the wound.

"*Dec.* 22. On this day a most remarkable symptom made its appearance; the pulse had fallen to 48 strokes in the minute, but in other respects was neither feeble or irregular. On the preceding day, (Dec. 21,) he had expelled, through the wound, in a fit of coughing, one of the arytenoid cartilages in a state of earthy degeneration, very much resembling carious bone. Whether this substance, which was triangular in shape, and sharp, could by its presence have kept the parts in a constant state of irritation, it is hard to determine. I have seen many instances of similar substances being discharged by cough, but the cases seemed uninfluenced by the circumstance, and went on without interruption to their fatal terminations. But here, almost immediately after its expulsion, the pulse fell to a most extraordinary degree; the capability of swallowing increased; the putrid odour became less offensive; appetite improved, and with it came some return of strength; a larger tube, the diameter of which is 3-8 of an inch, was introduced with a view to its remaining permanently.

Dec. 28. Patient appeared wonderfully improved both in appearance and strength, although his pulse varied between 42 and 48; a very small portion of his drink passed by the wound, but the fetor had diminished, and there was no purulent expectoration: appetite very good.

Jan. 13. It was scarcely deemed necessary to make any report of the patient's case during the past fortnight, except that he has been gradually improving. On this day his condition is as follows:—

His strength is wonderfully recruited, but he has not recovered from the emaciation; there is a circumscribed red spot on each cheek like that in hectic fever; pulse 84. On closing the tube, he can speak in a hoarse rough tone, but he cannot respire through the natural passage. The communication between the larynx and pharynx has closed; not a drop of liquid passes

through the wound. Appetite very good; sleep composed; respiration through the tube uninterrupted; no cough; no complaint of pain or uneasiness in any part: left the hospital."

On the 31st May, 1830, this man presented himself at the hospital. He was still breathing through the tube, and he will never be able to dispense with the artificial opening. The case bears a striking resemblance to that of Mr. Price, at Portsmouth, who still lives by the tube, after an interval of fifteen years from the operation. In Mr. Price's case, several portions of the thyroid or arytenoid cartilages, also came away. Of this, Mr. Porter, we should have thought, was aware—and therefore we were rather surprised at his saying that he knew of no instance where sloughing of the arytenoid cartilages had occurred, and not proved fatal. He will see Mr. Price's case in the first volume of this Journal, quarterly series, for 1820-21. The case, however, is very interesting, and we return the dexterous and intelligent surgeon our thanks for a perusal of it. It reminded us of many anxious hours which we passed in attendance in a similar case.

XX.

ST. GEORGE'S HOSPITAL.

On Wounds of the Scalp and their Consequences.

In our last report from this hospital we took up the consideration of injuries of the head, and detailed some interesting cases of concussion and its consequences. We propose to follow up the subject, by relating some of the cases of scalp-wound which have lately been treated at the hospital.

If an individual receives a wound of the scalp which merely divides the superficial soft parts, and does not penetrate the tendon of the occipito-frontalis, no unpleasant consequences usually follow, but it heals nearly as a wound elsewhere. We are supposing that the symptoms of concussion are slight, and do not materially interfere with the favourable progress of the case. There is no reason why a scalp-wound should be unaccompanied by very severe symptoms of concussion or compression, but that is not the case which we are now considering. If the wound has extended through the tendon of the occipito-frontalis and laid bare the bone, the injury is universally allowed to be more severe. In the first place the violence has probably been greater, and there is consequently more danger to be apprehended from injury to the parts within the skull; and in the second place, such a wound is more likely to be followed by common erysipelas, or a peculiar variety to which we shall presently advert. The bone which is laid bare may die, and exfoliate; or the dura mater beneath may be separated from it, and matter may form between them. All these are dangers which the voice of the profession has attributed to such wounds as we have mentioned. Scalp-wounds are also dangerous when very extensive, and complicated with much effusion of blood, or the diffusion of foreign bodies, as gravel and dirt, between the scalp and the occipito-frontalis. Such wounds very rarely escape an attack of erysipelas in this hospital.

Perhaps a simple and yet comprehensive arrangement of scalp-wounds may be made in the following way. They may be conveniently divided into four varieties, differing very much in the effects which they usually produce.

1mo. Such wounds as are not very extensive nor much contused and lacerated, and in which the occipito-frontalis is not torn, nor the bone denuded.

2do. Those wounds which are not very extensive, but in which a certain portion of the bone *is* denuded.

3tio. Those wounds which *are* very extensive; with contusion, laceration, and their consequences: the occipito-frontalis torn: and the bone more or less extensively denuded.

4to. Wounds which may or may not be extensive, but are complicated with fracture of the skull, constituting "compound fracture of the cranium."

Of these the first are the least dangerous, the last the most so. Of the former

we need give no examples, as most individuals have witnessed many, and the progress to a cure is seldom disturbed except by fortuitous circumstances, or a casual attack of erysipelas. On "compound fracture of the cranium" we shall say nothing, as it deserves and will obtain a separate consideration hereafter. The varieties of scalp-wound to which we direct our readers' attention, are the second and the third upon our list.*

And first, of those wounds which are not very extensive, but in which a certain portion of the bone is denuded. These have always been looked on with suspicion, and are generally watched with care. The shock and disturbance occasioned by the accident having passed away, there is usually a quiescent period, which may either end in the healing of the wound, or in more unpleasant consequences. The descriptions of some authors would lead their less experienced readers to believe, that if a portion of the cranium is exposed, it must necessarily die and be cast off by the process of exfoliation. Cases in proof of the contrary are occurring daily. We may briefly mention the particulars of one or two.

Case 1. *Slight Scalp-wound—Bone denuded—cure.*

John Reed, aged 25, a sturdy-looking bricklayer, was admitted on the 15th of June last, under the care of Mr. Babington. There was a small irregular scalp-wound at the vertex of the head, without much surrounding tumefaction. The bone was denuded for a small extent. There were fulness of pulse and heat of skin.

The accident had occurred on the preceding afternoon, from a brick falling on his head with such violence as to be itself split into three pieces. He was slightly stunned at the time. The treatment consisted of two bleedings and moderate purging. On the eighth day the wound was healed, and in two or three days more the man was discharged cured.

Case 2. *Slight Scalp-wound—Bone denuded—Symptoms of Compression—Cure.*

James Patterson, ætatis 60, admitted July 16, 1830, under the care of Mr. Keate.

Wound of the scalp on the crown of the head, leading down to the bone, which is denuded for the extent of a half-crown piece. Sensibility not quite perfect. Besides this, he has several other injuries, particularly an ugly lacerated wound of the lower lip. A short time before his admission he had been kicked in the mouth by a horse, and the scalp-wound appeared to have been inflicted by the violence with which the occupit struck the ground. He had been insensible for some time, but had not vomited.

The scalp-wound was dressed with adhesive plaster, and the other injuries properly attended to. In the course of two hours the pulse became full, sharp, 96—he was less sensible—there was a kind of stertor—and there were some convulsive twitchings of the lower limbs.

V. S. ad ℥xij.

The bleeding afforded much relief, and the blood was buffed and cupped. The next day he again relapsed some degree of stupor—the pulse was 80, full—the skin hot—the pupils contracted.

He was bled a second time, and had antimoniated salines. He was bled again on the 18th. The head symptoms had already subsided, and the general excitement now passed away—the scalp wound gradually healed, and no scale of bone was thrown off—and on the 11th of August the patient was dismissed from the hospital cured.

The preceding case was chiefly remarkable for the rapid manner in which reaction was established, and the early buff upon the blood. It is probable from these circumstances, as well as from the facility with which the symptoms disappeared, that the latter were rather occasioned by the inflammatory action set up in the brain than by

* As the symptoms of concussion or compression may readily be combined with all kinds of scalp-wound, but are not essential accompaniments of any, we discard the consideration of them at present altogether.

extravasation. The two cases prove that portions of the skull may be denuded of pericranium and exposed to the influence of the atmospheric air, without any exfoliation ensuing in consequence.

But these accidents may give rise to common erysipelas of the scalp, or to a peculiar affection, allied to erysipelas and running into it, and having its seat in the cellular membrane beneath the tendon of the occipito-frontalis muscle. And first of erysipelas of the scalp.

CASE 3. *Scalp Wound—Bone exposed—Erysipelas—Active Treatment—Recovery.*

Anthony Hitchcock, a soldier, ætatis 30, admitted Nov. 24th, 1827, under the care of Mr. Jeffreys.

Has a jagged wound, of almost sloughy appearance, on the left side of the forehead, with the bone slightly exposed. Another contusion behind the ear. Much pain in the head—eyes suffused and heavy—pulse strong and labouring—tongue furred—bowels confined.

States that four days ago he fell from a coach, was picked up insensible, and was carried to some hospital. Here he remained for a day or two, but on recovering his sensibility he left the hospital, and went to the public-house where he was billeted. He lay in bed, without medical advice or assistance, till the time of his admission into this institution.

Wounds dressed. V. S. ad ℥xx.—*Calomel*, gr. ij. *Pulv. jalapæ*, gr. vj. *4tis horis.*

He was relieved by the bleeding, but the bowels not having been opened, he took the senna draught every three hours until they were so. On the 25th there was still some pain in the head—the tongue was furred—the pulse rather more full.

Cat. lini capiti—V. S. ad ℥x. *H. salin. c. mag. sulph.* ℥ss. *6tis horis. P. c. calomel.*

The bleeding produced slight faintness, and in the evening he had some shivering; he had felt the same on the preceding day. On the 26th he was suffering much from head-ach and pain in the forehead—pupils rather dilated, with intolerantia lucis—pulse frequent and full—tongue whitey-brown and thickly coated—thirst—anxiety—pain just under the left nipple, where, on examination, a rib was found to be fractured, The blood drawn on the 25th was buffed and cupped.

Bandage to the chest. Lot. spt. fronti. V. S. ad ℥xv.

On the 27th the erysipelas had rather extended, with head-ach, thirst, furred tongue, pulse 92 and hard; the bowels were much purged. He was ordered to be bled to 20 ounces. In the evening he was not relieved, though the hardness of the pulse had disappeared; the pupils were contracted and sluggish; the patient inclined to be delirious. He passed a restless night, and on the next morning the erysipelas had extended down the right cheek; there was less pain in the head, the right side of which was œdematous; the tongue clearer; pulse frequent and full; constant nausea. The blood drawn on the preceding day was a little cupped, but instead of the common buff, it showed upon its surface a thick layer of perfectly translucent albumen, resembling jelly. The clot was loose. The bleeding was ordered to be repeated to 20 ounces, but 30 were taken by mistake; this blood showed no trace of inflammation. The erysipelas now began to fade, the pains in the head and symptoms of pyrexia passed away, a state of considerable weakness ensued, but the wounds healed favourably, convalescence followed, and on the 9th of January the patient was discharged from the hospital cured.

CASE 4. *Scalp-wound denuding the Pericranium—Erysipelas—Recovery.**

W. Kelly, æt. 36, admitted Feb. 20th, 1829, under the care of Mr. Keate.

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* As the bone itself was not denuded, it is hardly consistent to introduce the case in this place. The tendon of the occipito-frontalis, however, was torn, which makes the injury more severe than an superficial scalp-wound.

On the 17th he had received a small scalp-wound on the posterior part of the side of the head, by which the pericranium was denuded; there were no symptoms of concussion. The wound was dressed, and he resumed his work, but a rigor ensued and he applied at the hospital with urgent symptoms of pyrexia on the 19th. When admitted, on the 20th, he complained of much pain in the head, the pulse was full and hard, the tongue white and coated. The lips of the wound were asunder. He was bled to 10 ounces, had calomel and house-physic, and was ordered salines with antimony and magnes. sulph. every six hours. In the evening the bleeding was repeated, and the blood drawn on both occasions was highly buffed and cupped.

On the 21st, an erysipelatous redness appeared upon the scalp; the pulse was 112, the skin hot, the tongue white. He was ordered the draught of the acetate of ammonia.

The erysipelas extended over the forehead, accompanied with an œdematous condition of the scalp, particularly near the wound. On the 23d, the pulse being frequent and not so full, the skin tolerably cool, the tongue moist, the bowels rather purged, and the erysipelas extending over the face, he was ordered the liq. amon. acet. with mist. camph. and tinct. op. ℥l. x. 6tis horis. On the 24th the face much swollen and of dull red colour, the tongue brownish in the centre, the pulse frequent without force, the manner occasionally incoherent. He was put on decoction of bark and the liq. ammon. acet.

On the next day the erysipelas had ended in desquamation of the cuticle, but still much swelling and a brownish red colour of the forehead, face, and neck remained. The puffiness and œdema about the side of the head were diminished. The pulse was lower, and the tongue more brown and dry. He was still light-headed and exceedingly restless and fidgetty, but would answer questions rationally enough. The parts had hitherto been treated with cold spiritous lotion, but now the erysipelas ointment spread on a linen mask was applied to them.* From this time the improvement was progressive, and convalescence was scarcely retarded by the formation of one or two subcutaneous abscesses, which were opened with the lancet. In the course of a short time the patient was discharged cured.

Case 5. *Scalp-wound—Bone denuded—Erysipelas—Recovery.*

George Foley, a labourer, ætat. 32, admitted April 28th, 1829, under the care of Mr. Keate.

On the right side of the head, a little above and anterior to the ear, a jagged scalp-wound, leading down to exposed pericranium, and bare bone. The patient was not perfectly sensible, unable to answer questions, restless, and fidgetty; the pupils sluggish: the pulse but little affected. The portio dura on the same side appeared to be slightly paralyzed. There was a trifling injury about the knee-joint. The injury had been inflicted by a fall from a scaffold 40 feet in height; he had been completely stunned at the time, but had not vomited. The wounds were dressed, and cold lotion applied.

In the evening the pulse rose, and he was bled to 10 or 12 ounces; had a purge; and took salines with sulphate of magnesia every four hours.

On the next day he was so far recovered as to give a very clear account of the manner in which the accident had happened; there was more pulse, and the pupils were a little contracted; the paralysis of the portio dura, if such there was, had diminished. In the afternoon he became flushed, and the pulse had more force; in the evening he was bled to 10 or 12 ounces.

30th. Drowsy and heavy—pupils rather more contracted—pain in the site of the wound, which looks foul, and has been poulticed—pulse full, but not hard—skin warm—no rigor nor sickness. Blood drawn last night is not inflamed. Antimony was

* The erysipelas ointment consists of equal parts of cerat. calaminæ, ceratum saponis, and unguentum plumbi acetatis.

added to the salines. On the 1st of May there was less pain, but the pulse had some fulness and jerk, and the man contiued heavy and drowsy.

V. S. vespere ad ℥x.

He passed a bad night, and on the 2d, all the symptoms were more severe. More head-ach—pulse frequent and bounding—skin hot—scalp tender about the wound and tumid. He had experienced a kind of chill, not amounting to a rigor. He was bled to ℥viij. and soon afterwards the blood shewed the buffy coat. In two or three hours another vein was opened, and 30 ounces of blood abstracted. This had a marked effect upon the pulse, the skin grew pale, and perspiration succeeded. At 5, p. m. reaction had not set in, the pulse was soft, the patient in a tranquil state.

Next day an erysipelatous blush had shewn itself upon the forehead, attended with tumefaction of the scalp. The skin was moist, the pulse soft, the tongue whitish, the head-ach trifling. He was ordered effervescing saline draughts. On the 4th, the erysipelas had extended down the forehead to the face, and the tint was very pale. The pulse was soft, and the other symptoms as favourable as could be wished. On the 5th the patient felt low, and bark was exhibited, in combination with the liq. ammon. acet: Afterwards the bark was given alone, a generous diet was allowed, convalescence made speedy progress, and in the course of a fortnight or three weeks the patient was discharged perfectly well.

These cases appear to us particularly interesting, and calculated to give rise to reflections of much consequence in a practical point of view. The symptoms in all the three were those of inflammatory fever, indicating the active treatment which they received. These are almost the only instances of erysipelas at this hospital, in which we have seen venesection performed, for the usual run of cases are as different from these as if they had a separate place in the nosology. We have said that the symptoms were inflammatory; we might have gone further, and asserted that they were not to be distinguished from phrenitis. Indeed all the cases were treated for inflammation of the brain, until the appearance of the erysipelatous blush determined the nature of the affection. On other occasions we have seen the same mistake occur, and eminent surgeons have directed active antiphlogistic measures, for supposed inflammation of the brain, when the symptoms have turned out to be those of erysipelas. Of course we are speaking of injuries of the head.

Practically speaking, the diagnostic error is of little importance; for, if the symptoms ushering in traumatic erysipelas ape phrenitis so closely, as scarcely to admit of discrimination, it is probable that the same, or nearly the same treatment is required, as if that affection were actually present. Nay, we cannot affirm that phrenitis does not precede the erysipelas, and that active measures are not necessary to arrest it. From these considerations we may conclude that it is scarcely possible to pronounce on the exact nature of the symptoms, until the appearance of the erysipelatous blush has determined the question; and although we felt confident of the approach of erysipelas, we ought still to use active antiphlogistic measures, provided the symptoms clearly indicated their employment. At the same time, the surgeon should remember that what he sees may end in erysipelas only, and that this will not be benefited by such violent depletion as phrenitis would require. He ought also to be upon the watch lest the blush should escape his observation. We think that in most of these cases some œdema of the scalp precedes the redness, and may commonly be looked on as the herald of its approach.

The pyrexia preceding and accompanying erysipelas of the scalp, usually take place at a period anterior to the symptoms denoting the formation of pus upon the dura mater. There is also less rigor and more fever in the former than the latter. Rigors and sweating, with little heat of skin and excitement, characterise the presence of pus as under the dura mater; whilst much excitement and heat of skin, with slight chills or moderate rigors, usher in the

attack of erysipelas. This is a point deserving attention in other cases than those immediately under consideration. Generally the symptoms of erysipelas occur at an earlier period than those of the formation of pus within the cranium, or of the purulent depots in the lungs and liver. In the first case which we have here recorded the accident occurred on the 20th November, and the erysipelas *appeared* on the 26th—in the second case, it appeared on the fourth day after the infliction of the injury—in the third, upon the fifth day. The preliminary symptoms of fever commenced in all within two days from the occurrence of the accident. These are obvious distinctions between the two affections, even prior to the developement of the erysipelatous blush.

The state of the wound requires a remark. It assumes an unhealthy appearance, but not an alarming one. During the existence of the fever and erysipelas it makes no advance to cicatrization, but the bone does not die, and, after the subsidence of the erysipelas, the healing process generally proceeds with more rapidity.

We hope these observations on traumatic erysipelas of the scalp will not be considered out of place. They have nothing to recommend them except their being founded on attentive observation of cases. In conclusion we may simply remark, that after scalp wounds, and more especially after those in which the tendon of the occipito-frontalis is torn or the bone denuded, a series of symptoms ensue in the course of a few days, closely resembling those of phrenitis, or actually produced by it—and that, whether in consequence of the active treatment employed, or the efforts of the vis medicatrix naturæ, these symptoms end in the appearance of erysipelas of the scalp. For this variety of erysipelas incisions are seldom required So much for common erysipelas of the scalp.

It has long been observed that scalp-wounds are occasionally followed by a very dangerous affection, differing in many respects from the ordinary character of erysipelas. Surgeons have attributed these severe accidents to wounds of the aponeurosis of the occipito-frontalis muscle, and the inflammation induced in that tendinous structure. Many hints on this subject will be found in the older writers on surgery, but, not to trouble our readers with quotations, it is sufficient to state that such were their opinions and ideas. One of the latest practical authors, Sir Astley Cooper, has made the same statement in his published lectures, and informs us that inflammation of the tendon of the occipito frontalis is not uncommon, and abscesses, requiring incisions, are its frequent consequences. The matter, says Sir Astley, if the constitution has strength to produce it, is formed between the tendon and the pericranium—it cannot find its way out unless incisions are made through the tendon, and the inflammation accompanying the process sometimes destroys life. Sir Astley likewise observes that the inflammation of the tendon extends over the whole surface of the head, covering the scalp and face, and assuming an erysipelatous character, although it is not true erysipelas. It has not the vesicles usually attendant on the latter. Mr. Samuel Cooper, whilst reviewing in his Surgical Dictionary the opinions of Mr. Pott on this subject, opinions which, though imperfect, were yet remarkably sound and correct, contrasts them with those of M. Dessault, and decides in favour of the latter. Mr. Pott had observed that incisions were frequently necessary, M. Dessault decided that they were not, and Mr. Cooper cleaves to Dessault and renounces Pott. Unfortunately this is not the only instance in which Mr. Cooper weighs two opinions in the balance, and prefers the wrong one.

Prior to entering on the symptoms of this particular affection we should briefly advert to the structure of the parts which it attacks. The cutis of the scalp is particularly firm and dense—the adipose tissue firm—the cellular membrane connecting it to the epicranium or tendon of the occipito-frontalis, neither distinct nor readily admitting of effusion into its cells. The structure of the tendon of the occipito-frontalis need scarcely be alluded to here; suffice it to say that, like all

aponeuroses, its texture is firm and unyielding. Beneath the tendon of the occipito-frontalis is a very lax cellular membrane, connecting it loosely with the pericranium. The contrast between the cellular tissue above and below the occipito frontalis is very marked. Above it, serous infiltration is produced with difficulty, and never attains considerable magnitude; below, effusion takes place with facility, spreads to a great extent, and is only confined by the unyielding tendon of the occipito-frontalis. The laxity of this cellular tissue is obvious in the common operation of opening the cranium. On dividing the scalp through the tendon, it readily tears from the pericranium, but no one could separate the superficial parts of the scalp from the tendon without considerable force, if even he succeeded in effecting it at all.

Surgeons have attributed the extensive suppurations and sloughings that sometimes follow wounds, to inflammation of fasciæ or tendons. There can be little doubt that in this they were usually mistaken. The seat of the mischief has been the loose cellular membrane beneath the fascia or aponeurosis, and not the fascia itself. Inflammation takes place in this situation; the cellular membrane is loaded with effusion, which is bound down by the strong fascia; much compression is exercised in consequence on the cellular tissue, which possesses but a low degree of vitality; the inflammation partly ends in suppuration and the effusion of lymph, partly in sloughing, aided no doubt in the pressure exercised on one hand by the effusion, on the other by the fascia. The latter does not so readily slough, and perhaps the whole cellular texture beneath may be killed, before any natural process would form an opening for the exit of the matter pent up. Then, indeed, we find the fascia dead and sloughing, but this was not the original ill, it was the consequence of the suppuration and sloughing of the cellular membrane. This is a subject which cannot be treated in a few lines; it would require pages. But what we have said, was necessary, in order that the affection we shall now proceed to describe may be better understood.

A man receives a contused scalp-wound, which may or may not penetrate the tendon of the occipito-frontalis, but usually in this affection it does so. In the course of a few days the wound looks foul, its edges and immediate neighbourhood are puffy, and there is some firm œdema of the scalp around. The œdema and swelling of the scalp extend until the whole is extremely enlarged, very firm, and pitting only on steady pressure, whilst the indentation left by the finger is not removed so soon as in common œdematous swellings. If the head is shaved a slight erythematous or tawny blush may be seen here and there upon the scalp, but it has not the distinctive characters of erysipelas, nor is any disposition shown to vesications. In some cases thers is no perceptible discolouration whatever. Sometimes on the forehead, the back of the neck, or on the integument any where skirting the scalp, a dull erysipelatous blush may be observed.

If the progress of the disease be not arrested by nature or art, the swelling extends to the ears, the forehead, face, and neck, nay, even down to the chest or back. Where the common integuments are affected there is more of the true erysipelas blush, but it is never very florid, the parts are much swollen, and the œdema remarkably firm. At this time the patient usually dies with low delirium, prostration, and coma. In the commencement of the affection there are often symptoms of considerable excitement, but so soon as it has reached the extent we have portrayed, and generally long before that period, the prostration of the powers of life has become very marked.

Let us now describe what may be called the anatomical characters of the disease. If a deep incision is made through the scalp in the early stage, where there is only swelling and firm œdema, the following is the condition of the parts. The cutis and adeps are nearly in a natural state, and the former bleeds freely. In the cellular membrane between the adeps and the tendon of the

occipito-frontalis, there is seen a thin stratum of translucent gelatinous effusion, consisting more of lymph than serum, and filling all the cells. The tendon itself is little if at all altered in appearance. It is separated to the distance of a quarter of an inch, nay more than that, from the pericranium, by the same sort of gelatinous effusion in the loose cellular membrane, which was seen in a much less degree above the tendon. When cut, these parts suffer no collapse, although a quantity of serous fluid escapes. Neither the cellular membrane, in which the effusion is situated, nor the tendon bleed when divided, at least they commonly do not. Such is the state of the parts in the early stage.

If the incision be made at a more advanced period, the translucent gelatinous effusion is replaced by one more opake, and instead of serum, pus, or pus mixed with serum, will escape. The tendon is now stretched to the utmost, and appears to be losing its vitality, and in the cellular membrane below it sloughy shreds are mingled with the pus and lymph. The cellular membrane above the tendon shares the same fate with that below, but it is much less inclined to slough, and the disorganization has not proceeded so far. If the affection still hold on its course and the patient die, the whole cellular membrane beneath the occipito-frontalis is converted into a mixture of pus and slough—the scalp when divided falls off the pericranium—the tendon itself is in many places sloughy—the pericranium is easily separable from the bone, which in parts is actually laid bare—and the whole presents such a mass of mischief as Mr. Pott only could picture with effect.

From the foregoing description we may come to the conclusion that the first material change in the organization of the parts of the scalp, consists in an effusion of gelatinous-like lymph and serum in the cellular membrane beneath the occipito-frontalis; and if that effusion be allowed to proceed, that extensive suppuration and sloughing will ensue. The masculine mind and practical experience of Mr. Pott induced him to practise and recommend incisions, and although that method of treatment has been impugned, on what we must call theoretical grounds, yet many experienced surgeons have continued to employ it with more or less decision. Sir Astley Cooper recommends incisions in order to let the matter escape, but he does not appear to have recourse to them previous to the occurrence of suppuration. Mr. Brodie, to whose excellent clinical instructions we are indebted for the delineation which we have given of the disease, is, as far as we know, the only surgeon who practices incisions to prevent the formation of pus, rather than to let it out when formed. Mr. Brodie makes free scarifications in the early stage, when only gelatinous effusion is found beneath the occipito-frontalis. The effect is in many cases most satisfactory, the extension of sloughing and suppuration being moderated when it is not entirely prevented. As the affection is of a highly dangerous character, it cannot be supposed that even scarification will always succeed, but we may safely affirm that it does so more frequently than any other plan of treatment. In fact, if the case be at all severe, the patient is inevitably lost unless incisions are promptly and boldly made. The following case will exhibit the efficacy of this plan of treatment.

Case 6. *Scalp-wound denuding the Tendon of the Occipito-frontalis—Affection of the Cellular Membrane beneath it—Incisions—Recovery.*

Hamlet Kemp, a labourer, ætatis 51, admitted Sept. 21, 1830, under the care of Mr. Brodie.

Lacerated scalp-wound, three inches in length, at the back part and right side of the head, exposing the tendon of the occipito-frontalis but not passing through it—much effusion into the surrounding soft parts. He received the wound two hours ago by falling from a bank at the river's side into a barge. He was not stunned. He has probably lived intemperately.

Cataplasma lini.

Next morning he had pyrexia, felt sick, and said he had had a rigor. The lips of

the wound were rather tumid and inflamed, and firm tumefaction, with slight œdema, were observed around it.

H. Sal c. Vin. Ant. t. ℥. xx. *6tis. hor.*

On the 23d the firm tumefaction round the wound was increased, and there was œdema over a great part of the scalp. The pulse was frequent and rather low, the tongue white and pasty. Mr. Brodie made free incisions in the scalp, down through the tendon of the occipito-frontalis. There was much gelatinous deposition in the cellular membrane beneath the tendon of the occipito-frontalis—some, but much less effusion of the same kind, between the tendon and the adeps. The effusion altogether was very extensive, the scalp being half an inch or more in thickness. He was ordered a poultice, and put upon decoction of bark, as the erysipelas prevailing in the hospital had universally assumed a very low type.

On the 24th, the œdema had extended but little on the back of the head—there was no distinct redness of the scalp. The appearance of the cellular membrane under the occipito-frontalis had changed from that of gelatinous lymph to a more purulent deposite. His manner was somewhat hurried, and he felt rather sick. In the evening he was rather delirious and passed a restless night. Pale granulations had appeared next morning above the tendon in some of the incisions—rather more thin discharge—no redness of the scalp. He had taken a pint of wine daily; it was now diminished to half a pint. Some bleeding took place in the night from one of the incisions. On the 26th the wounds were looking better, and a free secretion of pus was established in the cellular membrane above and below the tendon. On pressing the tumefied scalp pus issued from the incisions. The wounds were now syringed well with the solution of the chloride of of soda; he had a mutton-chop daily.

Some diarrhœa now took place and was checked by the usual means. Healthy granulations sprang up from the sides of all the incisions and from the pericranium—considerable sloughs of the cellular membrane were drawn away—a great deal of pus which had formed, obtained a free discharge—and nothing occurred to retard the steady progress towards a cure. It has been mentioned that the original wound extended to the tendon of the occipito-frontalis, but not through it. When the incisions were employed, this portion of the tendon was not divided. The consequence was that it sloughed, and so did the pericranium below it, leaving the bone denuded for a space as large as a half-crown piece. This space was hemmed in and contracted by granulations—red vascular points appeared in the outer table, and at present, Oct. 21, there is every prospect of the scale of bone that is to separate being very inconsiderable. The wounds are nearly healed, the patient's health quite re-established.

CASE 7. *Scalp-wound denuding the Bone—Affection of the Cellular Membrane beneath the Occipito-frontalis—Incisions—Death.*

Mary Connor, ætatis 42, single, and a servant, admitted Sept. 15th, 1830, under Mr. Brodie.

Scalp-wound on the upper and back part of the head, situated transversely, two inches in length, denuding the bone, which feels rough. No loss of sensibility—surface cold—pulse slow. Fell from a pair of steps, twenty minutes ago, and struck her head against some flower-pots. Was stunned for some minutes, recovered, and vomited.

The wound was dressed.

At 3, p. m. she vomited, and soon afterwards there was some re-action, and pain in the loins. She was bled to ten ozs. and took salines with antimony. Next day there was much pain in the head, thirst, pulse 96, occasionally intermittent, and the bowels were not opened. The blood was not inflamed. She was bled again to six ozs. had senna, and a poultice to the wound. On the 17th the wound looked dry, there were excessive tenderness and slight œdematous swelling in its vicinity. The pulse was 108, full, and irritable—tongue white and moist—she had an anxious look.

Hirud. xv. *nuchæ—Cal.* gr. iv.—*Ext. Col. c.* gr. x. *stat.*

In the evening the scalp was more œdematous, and a faint, pale, erysipelatous blush had appeared upon the forehead, at the root of the hair. On the 18th, the erysipelas had extended over the forehead, and a firm œdema was spreading over the scalp. The edges of the wound were rather foul and yellowish. The patient was extremely nervous and depressed, and had been violently sick in the morning—pulse frequent but not full—no distinct pain *in* the head. Spirit lotion was applied—she took salines with the liq. op. sed. and had arrow-root allowed her.

On the 19th the erysipelas was extending over the face, with some tumefaction, and a muddy pale tint—there was no redness on the scalp. The symptoms were low, and there was the most remarkable debility of the voluntary muscles. The sp. ammon. arom. was added to the medicine. On the 20th the erysipelas was extending down the face with much firm tumefaction—there were vesications on the palpebræ. There were no head symptoms, but she had vomited. In the evening she was attacked with rather violent delirium, but did not evince any disposition to injure herself or others.

The delirium continued on the 21st, the erysipelas had rather extended, the tumefaction of the face was considerable, firm, and painful. The scalp was firm and œdematous, but puffy in the immediate neighbourhood of the wound. She had felt chilly in the night. Incisions were made freely. In the occipital region a mixture of pus and lymph was found in the cellular membrane above and below the occipito-frontalis, but chiefly below it; farther towards the forehead gelatinous lymph only was found below the tendon, and serum only above it. The integuments at the side of the wound were sloughy. There was some little bleeding, stopped by pressure—a poultice was afterwards applied—she had salines with ammonia—and was allowed some red wine. In the evening the delirium was less violent—she was extremely low—and there was little secretion from the wounds.

On the 22d the prostration was yet more marked, and if the delirium was diminished it seemed only because her powers were sinking altogether. The induration of the face, particularly the right side, was extreme, and the tint of the erysipelas was almost cadaverous. Incisions were made in the face and eye-lids. In the latter there was gelatinous lymph mixed with pus, in the former gelatinous lymph only in the cellular texture. After the incisions she became so low as to require wine and egg, and brandy—towards evening she sank—and at midnight she died.

Sectio Cadaveris. There was great and universal effusion of lymph in some parts, pus in others, beneath the tendon of the occipito frontalis. The cellular membrane was in many places sloughy, and separable with ease from the pericranium, as was the pericranium from the bone. At the original wound, the bone was bare for a little extent, and the superficial scale was beginning to turn brown and die.

There was a good deal of clear serous effusion between the membranes of the brain and in the ventricles, but otherwise the contents of the cranium were quite healthy. There was nothing unusual in the chest or abdomen.

In this case Mr. Brodie was prevented from seeing the patient with regularity in the early stages of the affection, and consequently the incisions were not made so promptly as in the preceding case. The perusal of the cases will show the differences in the result.

In another report we shall take up the consideration of some further varieties of scalp-wound, and give cases illustrative of their secondary consequences.

XXI.

RECTO-VESICAL LITHOTOMY.

OUR readers may be aware that this operation which was first performed by Sanson

in France, and did not experience a very cordial reception or extensive patronage in its native country, has latterly become the vogue in Italy. It has also been tried on one or two occasions in this country, but so many plausible objections have been urged against it, that it is not likely to be commonly adopted. In the transactions of the Medical and Physical Society of Calcutta, a case is related by Dr. Waddell, in which a stone was extracted from the bladder by this operation.

Case. A boy, about nine years of age, born of Mussulman parents settled in the town of Rangoon, had been affected with the ordinary symptoms of stone in the bladder for seven years. On examination a stone was discovered by the sound, and by the anus. The recto-vesical operation was proposed and performed on the following day, by Mr. Tweedie, field-surgeon to the Bengal division of the army.

The boy being placed near the end of a high table, in the usual position for lithotomy, and the thighs being held apart by assistants, the operator introduced the fore and middle fingers of his left hand into the rectum so as to embrace and fix the stone, and with a scalpel, having its cutting edge defended with cloth wrapped round it till within half an inch of its extremity, an incision, about 3-4 of an inch long was made into the shoulder and neck of the bladder, in the direction of the raphe; the scalpel being then withdrawn, the stone was brought away by a pair of common ball forceps. Several impediments occurred during the operation, such as the evacuation of the patient's bladder and bowels, the bearing down of the transverse folds of the rectum, and the recession of the calculus before the forceps; nevertheless the time occupied did not exceed five minutes, and not above half an ounce of blood was lost. As soon as the little fellow was released from the table, he had another stool, with some degree of straining; but all uneasiness quickly subsided, and before we left the house he seemed to feel as if nothing was the matter with him.

The stone was of a conoid form, four and a half inches in length, three and two-tenths of an inch in circumference at its greatest diameter, and weighed six drachms. Its surface was rough and granular, and its appearance that of the triple phosphate. The urine after the operation became feculent and the stools urinous—on the tenth day he was out of bed and walked about the house —after this he became feverish, with pain in the umbilicus, and passed a live lumbricus, six inches long, by the urethra, when the urine was bloody for some days, and voided with straining. On the thirty third day the urine was still mixed at times with fœces, and interrupted in its discharge by flatus. At night, when asleep, the urine was occasionally voided by the rectum. In about six weeks after the operation the communication between the rectum and bladder closed.

Dr. Waddell appends some extremely laudatory observations on the recto-vesical operation, but as his practical acquaintance with it seems to be confined to the foregoing case, we may take the commendations for what they are worth. One point we cannot pass over in silence. After enumerating what he conceives to be the common modes of death from the lateral operation, but in which the Doctor is certainly wrong, he contrasts the results with those from the recto-vesical methods. "On the contrary, (*cæteris paribus*, that is, the prostate and bladder being in a healthy state, and the restorative powers of the constitution unimpaired) there is abundant evidence to show that the improved recto-vesical operation is attended with little or no danger to life!" This passage evinces a very imperfect acquaintance with the facts on which it professes to rely. The abundant evidence is all the other way. In the Archives Generales, for July, 1824, we learn that of 69 who have undergone the recto-vesical operation, 13 have died, or rather less than one in five—and of those who recovered there are eight with fistulous openings; but of five patients operated

on in the Surgical School at Turin three died, whilst eleven cut in the lateral way recovered. Dupuytren operated after Vacca's method in six instances. He lost three patients by inflammation within the pelvis, and the other three remained with incurable fistulæ. Dupuytren was asked if he would still try the plan; he made no answer, but shook his head. Riberi saw two children cut by Sanson. One died in a few days of peritonitis, and the other was given up before Riberi's departure. Barbantini, who first introduced the operation into Italy, has acknowledged its disadvantages.

But, says Dr. Waddell, it is the improved operation, which is not to be accompanied with danger. Aye, there's the rub! Which is the improved operation? Is it Sanson's first or Sanson's last—or Vacca's—or Mr. Sleigh's—is it the high or is it the low—with the division of the sphincter, or without it? Alas! we cannot tell. Perhaps Dr. Waddell intends *his* case as an instance of the improved operation. If so, we can assure him that the proceeding adopted has been denounced by all, except its inventor, if such he can be called, Mr. Sleigh. A large stone could not, and a small one should not be extracted by it. In this operation there is risk of wounding the vesiculæ—there is risk of wounding the cul-de-sac of the peritoneum—there is risk of recto-vesical fistula—there is risk of foreign bodies getting into the bladder from the rectum, and forming the nucleus of a future stone. Besides these objections, the operation is more difficult, and in Dr. Waddell's case it was so, than the lateral operation, and the convalescence is more tedious. In fact, it is agreed on all hands, that the operation performed in the present case is, for ordinary cases of stone in the bladder, a bad one.

The avowed object of the recto-vesical operation has always been, the extraction of a larger stone than could readily be removed by the lateral operation. To effect this, it is a sine quâ non that the sphincter should be divided. Several plans have been adopted; but, as far as we know, the incision in all has been in the line of the median plane, in that of the raphé of the perineum. It is a question whether by such an incision we obtain more space than we should by the lateral operation. In this, the rectum is frequently wounded whilst cutting into the groove of the staff, or in using the bistoire cachée, and the experience of surgeons has proved that such wounds of the gut are not usually dangerous. We have seen the rectum wounded in three instances, whilst performing the lateral operation, and no materially bad consequences followed. A man at St. George's Hospital was lithotomized in the usual way. Symptoms of urinous infiltration and sloughing at the neck of the bladder ensued, and in order to allow a more ready exit to the matter, urine, and sloughs, Mr. Brodie laid open the rectum from the wound. The patient who previously seemed to be dying, recovered. These observations naturally led to what we are about to mention.

A young man, at present in the hospital, had laboured under the symptoms of stone in the bladder for twenty years. Many surgeons had examined him, and all, we believe, except one, had refused to perform the lateral operation, on account of the size of the stone. That one gentleman had *not* examined the patient by the rectum. Baron Heurteloup would not drill the stone; he thought it was too large. The calculus, when felt from the rectum, appeared to be of extreme size, and its anterior extremity was partially impacted in the prostatic part of the urethra. The high operation had been proposed, but this was considered unadvisable, for if the stone was of the magnitude imagined, the sonde-à-dard could not have been employed with facility. On mature consideration Mr. Brodie adopted a modification of the lateral and rectal operations, which may prove of great service on future occasions.

Having introduced the staff he cut upon it with the knife in the perineum in the usual way, and passing it along the groove of the staff into the bladder he divided part of the prostate. He then took Blizard's knife, passed it along the staff into the bladder, completed the section of the prostate and

part of the neck of the bladder, and turning the edge of the knife towards the right, nicked the wound in the prostate on that side, by which means he acquired additional room at a small expense of division of parts. The staff had lain on the right side of the stone; it was now withdrawn. Mr. Brodie took a curved probe-pointed bistoury, with a sharp-pointed bistoury blade concealed in it, and capable of being pushed forward or retracted at pleasure. He passed this to the bottom of the wound, and introduced the forefinger of the right hand into the rectum. Having felt with this finger the button-end of the bistoury, the sharp-pointed blade was pushed forwards, and the wall of the gut penetrated on the finger. This blade was then withdrawn—the probe-pointed bistoury had entered the rectum—and its division was completed from within outwards, by drawing out the bistoury with the probe-end resting on the fore-finger, as is done in the operation for fistula ani. The opening in the rectum at the bottom of the wound was not exactly opposite to the wound in the bladder, in order that a kind of valve might be formed, to prevent the ready transit of the contents of the bowel into the bladder. The remainder of the rectum was divided on its anterior and left lateral aspect. The forceps were introduced and the stone was readily extracted. It did not prove so large as had been anticipated by all who had, on different occasions, examined the patient. It was long, its anterior end was impacted in the prostatic part of the urethra, and from being always held in this situation, it had appeared to be fixed by its magnitude, and the finger in the rectum could never reach its posterior boundary.

The wound obtained by the operation was capable of admitting the egress of a calculus of very large size. The operation itself was simple, scientific, performed without difficulty. There was little or no bleeding at the time of its performance, and although a slight secondary hæmorrhage occurred in the afternoon, it was readily arrested by pressure on the pudic artery, and has not since returned. The event cannot yet be considered as determined, but the patient's condition at present is not unfavourable. We shall give the case more in detail at an early opportunity.

Miscellanies.

XXII.

CONTAGION OF PLAGUE.

THE public and the profession are aware that the late Dr. Gooch wrote an elaborate article in the Quarterly Review on the subject of plague and of quarantines, which he subsequently re-published in his work on the diseases of females, with his name appended. In some prefatory observations to this re-publication, he makes use of the following words:—

"About the year 1825 great pains were taken to persuade the legislature, that the plague is not a contagious disease, and that the *quarantine* laws are a useless burthen to trade. Two committees were appointed by parliament to hear evidence on the subject, and the government was on the eve of modifying and relaxing those laws. There were many persons far more competent than myself to put the question in its true light: but seeing that *not one would undertake it*, I wrote the following paper, and published it in the Quarterly Review, as the best pulpit from which to address the government and the people of England." . . . "The article worked well. I received a communication from his Majesty's ministers that it satisfied their minds on the subject; *the quarantine laws were left untouched;* and the subject which had been so actively discussed before, has been since scarcely alluded to."—(Gooch, Appendix to the diseases of Females, 1829.)

Upon this paper Dr. Granville has made a pertinent commentary in our cotemporary, the Medical Gazette—and we only wonder

that he should have so long permitted the passage to stand uncriticised. It would have been better had he published these remarks before the death of the author of the review—though certainly it is not too late. We recollect the parliamentary enquiry which then took place, for we were one of those who were examined on the occasion, and we think Dr. Gooch gave himself a great deal too much credit in supposing that it was *his* article in the QUARTERLY, which turned the scale against the anti-contagionists of plague—that it was "his thunder" which shook Dr. Maclean and his disciples from their throne—and not the evidence brought forward by the committee. We differ widely from him on this point. Dr. Granville underwent a long examination on that occasion, and published a pamphlet in which he collected a great number of historical facts blended with his own personal experience. It is but fair to infer that his viva voce evidence and his written statements contributed materially to the quashing of the wild speculations at that time broached by Dr. Maclean, and believed by a considerable number of non-professional persons.

Dr. G. avers that Dr. Gooch, as well as the editor of his life, was wrong in dates—wrong as to facts—and wrong as to conclusions.

"It was in 1819, and not in 1825, that 'great pains were taken to persuade the legislature that the plague was not a contagious disease.' The immediate effect of this attempt on the part of the anti-contagionists was the appointment of a Committee, in 1819, followed by a Report to the House of Commons, in which it was stated that the opinion of all the competent witnesses, who had been examined, except two, *had proved to the satisfaction of the Committee*, that the plague was a contagious disease: and that report so far settled the question of contagion to the satisfaction of the King's Ministers, that not another word was uttered on the subject for five years after, nor any attempt made to disturb the quarantine laws during that period. Was Dr. Gooch examined before that Committee? Was he deemed a competent witness? No; his his name does not even appear; whereas mine stands not unconspicuously among those of several contagionists who brought forward a host of facts in support of their doctrine. But as mere oral evidence appeared to me insufficient on that occasion, I undertook, in a work written for the purpose that same year, to answer all the objections started by the apostle of non-contagion, Dr Maclean. I disproved in that work all his assertions, and brought forward so many additional facts, of several of which I had been an eye-witness, that none but Dr. Gooch ever ventured subsequently to say 'that no competent person *before him* had undertaken to put the question in its true light.' Dr. Gooch compiled his article in the Quarterly with my own arguments, my own references, my own quotations, and narrative of events; and, above all, with the principal facts contained in my letter on the plague and contagion, addressed to the President of the Board of Trade, in 1819. (Lord Goderich). He also borrowed largely (and still without acknowledgement) from the printed evidence laid before the House of Commons, which went far to show 'the question in its true light.' Nay, the very words with which the Report of that memorable Committee conclude afford a striking proof that the question of contagion required not the farther assistance of a purely theoretical writer on the plague like Dr. Gooch, in order to be settled. 'Your Committee *see no reason* to question the validity of the principles on which quarantine regulations appear to have been adopted.'

The above passage, and various other statements in Dr. Granville's paper, show that Dr. Gooch assumed a great deal too much, and that, like some other writers in the QUARTERLY, his brain was turned by the smiles and the gold of Mr. Murray.

XXIII.

CHOLERA MORBUS.

THIS terrific epidemic has reached Astrachan, nay, even Moscow, and is menacing

the Russian dominions in Europe. No doubt, it is despatched by Providence, as a substitute for WAR, which has so long ceased to thin the population of the world. The humane Autocrat, however, is not disposed to view the matter in this philosophic manner; and has liberally offered a reward of 25,000 rubles, 1100*l.* sterling, for the best dissertation on the nature, cause, prevention, cure, &c. of cholera. It is not to be supposed that the immense mass of documents published—or rather collected by the Medical Boards of our three Indian Presidencies, together with the numerous monographs on the subject of cholera, should be known to the council of health in Russia. They are very imperfectly known even in this country. But be that as it may, while we admire the paternal solicitude and the munificent liberality of the Russian Emperor and government, in holding forth such a premium for the best dissertation on the disease in question, we venture to predict that not an IOTA of additional information to the stock on hand, will be thus elicited. In every parallel of latitude and longitude—and in every season of the epidemic, since its first commencement twelve years ago, the disease has been constantly modifying, if not changing its character, thus puzzling the etiologist, and embarrassing the practitioner! Under such circumstances, what is to be expected from a prize-dissertation? Twenty-five thousand rubles! What is to be gained by the Russian government from the best essay on cholera? The loss of the above sum—that's all.

XXIV.

CITY OF LONDON MEDICAL AND CHIRURGICAL SOCIETY. Established May 1830.

RULES.—1st. That the above be the name and title of this Society, and that it consist of six official Members, four of whom shall form a Quorum.

2d. That one of the six Members shall deliver a Lecture in his turn at his own house, or appoint a proxy, on every Wednesday throughout the year, until two courses are completed.

3d. That the Members shall assemble at the Lecturer's house at 6 o'clock, p. m. The Lecture to commence at half-past six, at which time every absent Member shall be fined 2s. 6d.—the Lecturer, if absent, 5s. The non-payment of the fines shall subject the party to exclusion.

4th. That a Member shall be allowed to invite medical or non-medical friends on the evening of his Lecture only.

5th. That a proportionate and specific time be allowed by the Secretary to each Member for reading the various publications, at the expiration of which time they shall be forwarded in order from one Member to another.

6th. That no expenses be incurred, nor business transacted, but by a majority.

7th. That a report of the proceedings of this Society be published from and after the expiration of the first year of its establishment.

8th. That a President, Secretary, Treasurer, and Librarian, be ballotted for annually, who shall report upon the state of the Society every three months.

9th. That at each weekly meeting, a Chairman be appointed for the evening, in the absence of the President.

10th. That each Member shall subscribe every four weeks towards the funds of the Society; which shall be applied to the purchase of Instruments, Medical and Chirurgical Publications, &c., for the use of the Members only.

11th. That new Members may be unanimously elected into the Society after having been proposed, three weeks' notice of which shall be given to all the Members. The said Members, so elected, not to fill any office or situation in the Society till the expiration of one year after their admission, except in cases of death, resignation, or exclusion, of Members in office.

12th. That if any Member shall act offensively or injuriously towards another Member, he shall be called upon for an apology. The refusal of which shall subject him to exclusion.

13th. That Bye Laws be made by a majority of Members, and recorded by the Secretary.

14th. That each Member on admission sign the above Rules.

XXV.

A FEW WORDS TO QUACKERY. By DEMOCRITUS, jun.

THE above is the title of a brochure recently published, and said to be from the pen of an eminent literary physician. We cannot believe it; for a more inane and tiresome, yet conceited performance, we have rarely perused. Think of a physician at this time of day, with all the follies of St. John Long and his disciples before him, sitting down in the British Museum, and giving us a dull abstract of various pamphlets, published one hundred years ago, respecting the pretended lithontriptic powers of egg-shells! These excerpta, together with a long list (such as appeared at the Old Bailey in favour of Long) of those who believed themselves cured by Mrs. Stephens' nostrum, fill three-fourths of this 12-penny pamphlet. That any man not in Bedlam, but actually in the British Museum, should possess a brain so totally deprived of all claim to sanity, as to put forth such an essay at this period, would be incredible, were not the fact before our eyes. The author says, in conclusion—"I had intended to write only of St. John Long, but have found myself *insensibly* drawn into giving a history of Mrs. Stephens." For *insensibly* he might have said *senselessly*. We believe that neither LONG nor STEPHENS is worth the trouble of a penny pamphlet; and therefore, if physicians have nothing else to do than to ransack the library of the British Museum for materials for a brochure, they might employ their literary leisure to much greater advantage. The title is the only cunning part of the performance, being grafted on the excitement of the moment. The following extract is the best specimen we could find in the pamphlet.

"You probably know some nicish girl of two and twenty, living with her parents in a dull, sober, well-conducted house in Knightsbridge, Kentish Town, or perchance in Newington Butts. She has no immediate prospect of being married, and has been getting rather thinner for the last year or two. She has occasionally some cough and expectoration, and is troubled with a stitch in her side; nay more, she has a fair skin and blue eyes, and is therefore convicted, on the evidence of a thousand novels, of being in a consumption.

'Really Loo, my dear, that little hacking cough of yours quite alarms me; you positively *must* go to Mr. Long; I'm told he's very clever in those complaints.'

Now the truth is that Miss Lousia's complaints are simply nervous or hysterical; and any thing capable of changing the hypochondriac current of her ideas, or relieving the dull monotony of her existence, will effect a temporary cure, be the remedy agreeable or disagreeable, be it prescribed by Maton or inflicted by Long;—thus marriage, a trip to Brighton, or a legacy of 10,000*l.* will prove as effective as assafœtida, a residence in a disturbed Irish district, reading Mr. Long's book, or being flayed by his liniment.

You see my dear public, I have no spite against this famous liniment; quite the reverse; I believe it to be a good, scorching, burning, skin-destroying, slough-creating liniment, as one might wish to see on a summer's day—as good a liniment as the healing god might have used, when whilome in Harley-street—I beg pardon, in Phrygia—he cured Mysias of all his ailments in one single visit. Nay, more, I must freely confess that there is one quality in which this vigorous liniment

> 'stands alone,
> Like Adam's recollection of his fall;'

a quality to which a red-hot poker, and sulphuric acid, and the cat-o'nine-tails, and caustic potash, and other of its elder-born-brethren make no pretension—I mean its acute discriminating power. This is not one of those vulgar embrocations that fasten on friend and foe alike—one of those hot-headed inconsiderate lotions that would treat the skin behind which the lungs of Stentor were entrenched, like the skin of a Hawkes or a Fennel;—no, no; a liniment educated in the polite air of Harley Street would scorn the sordid manners of its relations brought up in hospitals, whose un-

fashionable site I am almost ashamed to mention. This sharp and super-human discernment will certainly place the liniment far above the stethoscope—no man will content himself with looking, or rather hearing, when he can look and cure at the same time. It was long ago said—

'Segnius irritant animos demissa per aures
Quam quæ sunt oculis subjecta fidelibus.—*Hor.*

That is—

When St. John's learned eyes
Can read your chest and neck,
What man of sense would prize
The tube of Laennec?

How curious it must be to observe a broad excoriation, the telegraphic signal of some vast abscess within, and to contrast it with the minor aad interrupted flayings that indicate the presence of tubercles!"

The verse on Long and Laennec, in the foregoing extract, would puzzle all the lake poets of the present century, to reduce it to any standard of song, even in these days of eccentric versification! We have not the most distant idea of the name of the author —but we strongly advise him to remain anonymous.

XXVI.

VENEREAL INFLAMMATION OF THE TESTIS.

FROM the analysis of Sir A Cooper's work, in the review department of the last and present Number, it will be seen that that experienced surgeon has described a venereal inflammation of the testicle. We had not room for several of the cases he brings forward in support of his opinions in that part, aad we therefore supply the deficiency by inserting the particulars here.

Case 1. A. B. æt. 32, has the epididymis on the right side greatly enlarged and very much hardened—pain in the head and limbs aggravated to a distracting degree at night —painful node on the left tibia—pain and enlargement of the ulna. Four years and a half ago he had a chancre, for which he took a little mercury, and the disease disappeared. He continued well for some time, when a swelling began in his groin, which soon disappeared also. From that time he has had pains in his bones, relieved or not as he took or discarded medicine. The epididymis and testicle have been enlarged for twelve months, and though now not painful they were so at first.

Case 2. A gentleman who had been frequently subject to sore throats, which Sir Astley thought venereal, had his testis gradually enlarge without pain. Its shape was pyramidal, and not being able to distinguish it from hydrocele, our author put a lancet into the tunica vaginalis, when only two or three drops of blood were discharged. The oxymuriate, in tincture of bark, speedily reduced the enlargement of the testicle.

Case 3. A man applied to Sir Astley in Nov. 1827, with a testis diseased and hard as marble. Four years previously he had a venereal complaint, and, in a few weeks afterwards, the testis became enlarged, but was reduced in a month, under the use of mercury. In four months, the swelling in the testicle returned, and in two months it again disappeared by the same treatment. Two years ago it again swelled, and was again relieved. In the last Spring it became again swollen, and now, in the month of November, it is of large size. The mouth was for some time affected with mercury, but Sir Astley's notes do not contain the termination of the case.

Case 4. A. B. had a chancre three years ago, which was not succeeded by bubo. A year ago he had a hydrocele on the right side, which disappeared under the use of mercury and evaporating lotions. Seven or eight months ago he observed a swelling in the right testicle, which still continues; it is extremely solid, the epididymis is enlarged, the scrotum red, and there is pain in the loins and groin.

Case 5. C. T. has enlargement of both testes, without redness of the scrotum, and with very little pain. Sir A. C. consid-

ered them venereal. He took large quantities of the decoctum sarsaparillæ compositum, with the oxymurias hydrargyri, and got perfectly well.

Case 6. A gentleman's servant had a chancre and bubo twelve months ago, since which time the left testis had become enlarged, very much hardened, and accompanied with hydrocele—mercury was given and he recovered.

Two more cases are related, but these we have noticed elsewhere. Whether it be thought that the testis is susceptible of true syphilitic enlargement, in connexion with secondary symptoms, or whether it be considered that the venereal virus merely gives occasion to chronic inflammation, it is satisfactory to know that mercury is the specific in both cases. In cachectic habits it should be combined with sarsaparilla.

XXVII.

ABSENCE (CONGENITAL) OF THE ANTERIOR LOBES OF THE BRAIN.

IN the annual report of the new Anatomical Society of Paris, a preparation was shown by M. Lacroix, exemplifying the above mal-organization. The secretary of the society makes use of the following words: "if the opinion which assigns to the anterior lobes of the brain the privilege of presiding over the higher intellectual operations, needed any new confirmation, it would find a powerful argument in its favour in the case reported by M. Lacroix. In that case there was a complete congenital absence of the anterior lobes of the cerebrum, which were replaced by a collection of transparent serum communicating freely with the ventricles. This physical condition was accompanied, not by a perversion, but by an almost entire nullity of the intellectual and moral functions. Here was an experiment made by nature, more valuable for physiology than any vivisections of the anatomist." The secretary remarks that this case tells both for and against the phrenologists—for them, as showing the seat of intelligence to be in the anterior part of the brain—against them, as showing that their skill could not have detected the cause of the idiocy, since the forehead was well formed, though full of water, and all the prominences well-marked.

Almost at the same time that the above preparation was shown, another came under view where the left hemisphere of the brain was found atrophied to one half its original volume, without any loss of intellectual faculties, the other lobe being entire. The atrophy was occasioned by an accumulation of fluid in the lateral ventricle of that side, and the opposite half of the body was completely paralytic.

XXVIII.

LANCETTED STILETTES IN STRICTURE.

Mr. STAFFORD has very laudably published an appendix to, instead of a new edition of his works on strictures, for the accommodation of those who hold the second edition. He informs us that he has now operated on more than forty cases of permanent stricture, of the worse description, without a single failure. "In no instance has there been a false passage made, nor has the cutting through the contracted part caused pain, hæmorrhage, inflammation, or any other unfavourable symptom." The hardened structure of the stricture has been absorbed, and no relapse has taken place, as far as he knows. In addition to these cases he has, on two different occasions, divided through an enlarged third lobe of the prostate gland, which in one case had caused total, and in the other, partial retention of urine. In both cases the patients recovered the complete power of the bladder. We shall introduce a single case out of 13 here published.

"*Case* 11. A distinguished general officer, rather more than sixty years of age, and of a shattered constitution, from hard service in India, the Peninsula, and other countries, placed himself under my care

with a diseased urethra, which he had dreadfully suffered from for more than thirty years. The canal was regularly thickened and contracted to four inches in extent, which began exactly four inches distant from the orifice, and terminated at the prostate gland. He had frequently undergone courses of bougies, and the application of caustic, without any beneficial result; at length ulceration took place in the urethra, the urine was extravasated, and a fistulous passage ensued in the perinæum. In course of time this healed up, since which the passage gradually got worse, until it would not admit any thing larger than a No. 3 bougie, which, for the last six months, he has always been obliged to pass into the bladder before he could make water, and if he did not succeed in that operation he invariably suffered from retention of urine. His bladder, also, had partially lost its power, expelling only about half its contents. The urine was always extremely fetid and of a turgid dark colour, and there was very frequently deposited a considerable quantity of sediment at the bottom of the chamber-pot of a tenacious thick mucus, such as is secreted in diseases of the prostate gland.

Having given up all hope of deriving any benefit of the common mode of treatment, he made up his mind to have the diseased structure gradually divided by the stilette. This I accomplished by four different operations, from time to time, and during the whole treatment no unfavourable symptom occurred. At length I was enabled to introduce a No. 12 flexible catheter into the bladder, which I left there a few days. After this time I discharged my patient, allowing him to pass bougies for himself twice a week until the cure was completed. I have since heard from him by letter, in which he states—

'I can now decidedly say from experience that your operation has succeeded to my fullest expectation. I have never any difficulty in making water, and I have invariably passed the bougie you desired me (No. 13) without stoppage, pain, or difficulty, every fourth day, and I can even pass a large No. 14.'

He can now expel the whole contents of his bladder: the urine is never fetid, and the prostate secretion has entirely disappeared."

XXIX.

REMARKABLE DISEASE OF THE HEART: By Dr. BUET.

A MAN, 45 years of age, of delicate constitution, narrow chest, and subject to palpitations for many years, with dyspnœa on walking quick or going up an ascent. To these were added habitual cough, sometimes dry, sometimes with expectoration. The digestive organs were often disordered, and there was considerable emaciation. The pulse was irregular, and auscultation aided by percussion showed the heart greatly enlarged, the pulsations being loud and tumultuous, with a confused noise of bruit de soufflet and bruit de scie. In front, the respiration was entirely masked by the sounds of the heart, excepting under the left clavicle, and in the right side of the thorax, where it was sufficiently audible throughout. In the left side respiration only audible at the top of the lung. The *right* sounded well, except at one place near the nipple. The sound of the *left* side was dull pretty generally, except under the clavicle. The dignosis formed was, great dilatation of the right ventricle, state of its parietes uncertain—dilatation with hypertrophy of the left ventricle—probable narrowing of the auriculo-ventricular opening of this side—the cardiac disease the principal one—lower half of left lung engorged—upper portion, as well as the whole of the right lung respirable. The case was, of course, pronounced to be fatal, and only mitigation to be attempted. Leeches were occasionally applied to the præcordial region, and digitalis with diluents were ordered internally. After some days the patient found himself greatly relieved—the dyspnœa disappeared—the irregulaities of the pulse ceased, and never afterwards returned—the cough abated—the expectoration decreased. This was

toward the close of last September. By the middle of December he was free from cough and expectoration, and the dyspnœa was inconsiderable. The impulsion of the heart was also much diminished—appetite good, and the patient congratulated himself on the improving state of his health. Nevertheless the emaciation went on, and his strength became reduced. After this, the old symptoms gradually recommenced, and by the beginning of March last he was forced to keep his bed. The abdomen swelled a little, as did the ankles. The remainder of the scene may be easily imagined.

Dissection. There was no serous effusion in any of the cavities, although the members were greatly infiltrated. Here M. Buet lauds the pleximeter of M. Piorry, and declares that by it the slightest degree of effusion in the thorax may be detected. M. Piorry examined the dead body before the chest was opened, and pronounced the absence of all effusion. This was verified on examination. The heart was enormously enlarged—at least equal to the size of a child's head. There was a large quantity of black-blood. The right auricle and ventricle were greatly dilated, double, at least, the usual size, while their parietes were very thin, that of the auricle not thicker than paper. The *left* ventricle was dilated to double the size of the right one, while its parietes were hypertrophied to the extent of an inch in thickness—of the densest structure, and deepest colour. The muscular fibres of this side of the organ were remarkably developed, and offered great resistance to the scalpel. The left auricle was in its natural state. The aorta was neither dilated nor contracted. The lung of the right side was slightly engorged but crepitant throughout. The upper half of the *left* lung resembled that of the right; but all the rest were hepatized in the last degree. There were neither tubercles nor suppuration. No effusion into the abdomen.

Was this a case where Baron Larrey's mode of treatment was applicable? Whatever influence the counter-irritation of the Baron might have had on the hypertrophy of the left side of the heart, it could not have been of any advantage to the passive dilatation of the right chambers. The Baron would, however, have put his favourite measures in force, but with what success we will not pretend to divine.

XXX.

DEATH FROM RUPTURE OF ONE OF THE SEMILUNAR VALVES OF THE AORTA. BY DR. PLENDERLEATH.

THIS case, being short, we shall copy it verbatim from our cotemporary, the Medical Gazette, for reasons to be adduced in the sequel.

"A. B. immediately after an examination before the College of Surgeons, most honourable to himself, complained of being generally unwell, with symptoms of indigestion; to dissipate which he was recommended to go to the coast, and was visited for the first time on the third of last month. At that time he had regained his appetite, but complained of a sense of fulness and of oppression about the chest, occurring in paroxysms, with despondency and symptoms almost amounting to complete hysteria. His pulse was full and strong, and he was recommended to lose blood. Having neglected this advice, in two days the symptoms became so aggravated that twenty ounces were taken from the arm with relief. The strength of the patient, however, becoming impaired, he was confined to bed with the above symptoms, almost daily occurring, and more or less aggravated, especially those of hysteria. The pulse became intermitting, attended with a sudden jerk, which last symptom was particularly observable in the carotid arteries. His thirst was at no time much increased, and the urine only decreased in quantity within a week of the termination of life, and did not show the presence of albumen. The stethoscope, used by an experienced practitioner, did not indicate the specific nature of any disease of the heart. The pulse, for

three days before death, became regular, and on the morning of the second of October, when making an effort on the night-chair, the patient suddenly expired. During the three days preceding dissolution, the functions of the liver were suspended.

Dissection. Slight adhesions of the lining membrane of the chest; lungs much gorged with blood; pericardium contained four ounces of sero-sanguineous fluid, but showed no signs of inflammation. The heart was of remarkable paleness; its substance very soft, much enlarged, and very thin, and so flabby as to make it difficult to examine it, the ventricles falling flat together. The right ventricle about one third part of its usual thickness; the left ventricle very thin, and towards its apex remarkably so. The semilunar valves of aorta very much thickened, red, and in the tendinous margin loaded with calcareous matter. The appearance was as if studded with innumerable points, of the smallest possible size, like millet seeds? they were hard, and giving the feel of powdered bone. The appearance of the heart on first viewing it *in situ* was that of a diseased and thickened bladder; the substance tore very easily, suffering the fingers to be pushed through with great ease. The aorta reduced to half its size in diameter, and a good deal resembled parchment. In the right cavity of the chest a pint of sero-sanguineous fluid, including a large quantity of hydatids; in the left cavity a pint of similar fluid. One of the semilunar valves of the aorta was ruptured transversely to its base; the other valves healthy; stomach and liver healthy; spleen enlarged to twice its natural size; intestines healthy. In reviewing the above dissection, it is singular to find the left ventricle, which in the natural state is nearly twice the thickness of the right, to have lost so much more of its muscular structure, and to find that where the elasticity and contractility of the heart were so much diminished from the absorption of its cellular tissue and muscular fibre that rupture did not take place in its parietes, which were so much thinner and softer than in their states of healthy structure, but took place in a valve which had acquired a preternatural firmness."

With a highly diseased state of heart—an aorta contracted to half its natural calibre—a sero-sanguineous effusion into the pericardium—a disorganized condition of the aortic valves—a pint of sero-sanguineous fluid, including a quantity of hydatids, in each cavity of the chest—with all these lesions, we cannot but wonder why Dr. Plenderleath should pitch upon a rent in one of the semilunar valves as the cause of death? We hardly think that this rent had the slightest operative effect in the production of the final catastrophe. The office of the semilunar valves is to prevent the regurgitation of blood into the ventricle during the diastole. But the great difficulty, in this case, was to propel the blood through a contracted aorta by means of a softened and weakened heart.

XXXI.

MR. HUSKISSON.

DR. WETHERILL of Liverpool, whose uterine operations we some time ago took the liberty to censure, has recently put forth an anathema against the practice pursued by the surgical attendants of the late Mr. Huskisson, strongly stigmatizing them, in the most illiberal language, as pursuing a treatment "unscientific, inefficient, and imbecile." These are terms which the liberal doctor not only uses himself, but puts into the mouths of his brethren generally in Liverpool. We do not believe this last insinuation, not only because the surgical faculty of that large town is better informed on the subject; but because we happen to know their sentiments through a channel on which we can depend. Dr. Wetherill asserts, or copies the assertion, that "an army or a navy surgeon might have saved the life of Mr. Huskisson, and so might any other surgeon, whose head and hands knew how and when to do their duty." The rashness of this assertion, coming from men who were not present at the accident, and who could know nothing of the case beyond what the

public papers conveyed, is unbearable! Every surgeon who knows any thing of his profession, is aware that no general rule will apply to all cases of injury requiring amputation. Of ten men whose thighs may be shattered to pieces by external agents, five may be in a state to bear immediate operation—while the other five may have received such a shock, and have their nervous systems so depressed, that an operation would be madness before some degree of animation was restored. All accounts agree, and Mr. Whatton, in an able reply, published in the Lancet, confirms them, that the lamented Mr. Huskisson was at no period, after the accident, in a state that could at all authorize amputation of the limb, or afford the slightest hope of success from such an operation. We are assured by Mr. Whatton, that a ligature was thrown round the femoral artery immediately, and that there was no hæmorrhage of any consequence. The following short account of the accident and death is worthy of record, and will show the illiberality of Dr. Wetherill's strictures in a clear point of view.

"Mr. Huskisson received a compound fracture of the leg and thigh, on the 15th of Sept. last; both bones of the leg were broken at the upper third, and much comminuted; their splintered ends exposed, and the soft parts lacerated to a considerable extent; the femur was fractured somewhat above its middle, and both ends exposed; there was here also much comminution, and an extensive laceration of the muscles and integuments, and the femoral vessels were distinctly visible at the bottom of the wound. As the accident happened midway between Manchester and Liverpool, considerable delay took place before one of the carriages could be detached from the train, and the necessary arrangements effected; but as soon as this could be done, Mr. Huskisson was carried forwards to the vicarage at Eccles, and the same engine passed on to Manchester for surgical assistance.

Mr. Ransome, Mr. Garside, Mr. White, and myself, were on the rail-road when the engine arrived; and having learnt the particulars of the accident from Lord Wilton, who came up from Eccles, the necessary instruments for amputation were procured from Manchester, and we set off as quickly as possible for the vicarage, where we arrived at about half past two o'clock, two hours after the accident.

Mr. Ransome and myself were introduced by Lord Wilton, and found that Dr. Brandreth of Liverpool, and Dr. Hunter of Edinburgh, who had accompanied the procession, had arrived in the carriage with Mr. Huskisson, and had remained in attendance upon him from the period of the injury.

The patient was laid on a sofa: there had been great hœmorrhage, not only on the receipt of the wound, but afterwards, by constant draining from the veins, countenance pale and ghastly, forehead covered with cold perspiration, cold and stiffened extremeties, and sickness and oppression at the stomach, with frequent convulsive shudders, difficult respiration, and great constitutional alarm.

Although an immediate amputation was every way desirable, yet, to have operated under these circumstances, would have been madness in the surgeon, and certain death to the patient. Small quantities of warm cordials were given at intervals, as the stomach would bear them, bottles of hot water were applied to the hands, feet, and sides of chest, and every thing was had recourse to, with the view of calming the constitutional disturbance, and of restoring some little power, to enable him to endure the additional shock of the operation.

These efforts were in vain. The anxiety and oppression still remained, the pulse fluttered occasionally at the bend of the arm, the difficulty of breathing increased, the convulsions became gradually more violent, and we witnessed his departure, with feelings of the deepest sympathy and regret, at nine o'clock, S 1-2 hours after the accident."
—LANCET.

We need hardly express our belief, that the medical attendants on this melancholy case are entirely free from blame.

XXXII.

HYDATID OR ENCYSTED DISEASE OF THE TESTICLE.

IN our review of Sir Astley Cooper's book, we have necessarily been compelled to omit many of the cases, which he relates in illustration of his doctrines. We shall take the opportunity of noticing them in detached articles in this department of the Journal. We commence with the hydatid or encysted disease, premising, however, that the term hydatid is not meant to imply the existence of true hydatids in this affection. As these parasitic animals are sometimes met with in the testis, we think it would be better to limit the appellation of hydatid disease to that in which they really exist. The other might simply be named the encysted.

Case 1. A young man, 20 years of age, found a tumour, without obvious cause, at one extremity of the testis, but at which he could not say. It was at first unattended with pain—was usually soft—but, as it grew more and more, it became, though generally soft, at times extremely hard. It was now extremely painful on some occasions, but commonly there was a little uneasiness. After a twelve month it was extracted, and the spermatic cord being tied too loosely, exuberant granulations sprouted from its extremity and required a second and tighter ligature. On cutting into the testicle it was found to be composed of numerous cysts, of different sizes and forms, containing a fluid like serum in some parts, like white of egg in others. In one part the testis was very compact, and at that part there was a tendency to suppuration.

Case 2. A young medical man consulted Sir Astley with an enlargement of the testis, which was about seven times its natural size. It was quite unattended with pain—its increase had been very gradual—its weight was considerable—its fluctuation was very obscure--and it was not transparent. His general health was good and Sir Astley recommended the operation, which was done by Mr. Guthrie. The disease on examination proved to be of the encysted kind. The patient gradually recovered and did very well.

Case 3. Bartholomew Lupre, ætatis 30, an Italian sailor, was admitted into Guy's Hospital in April, 1809, with an enlarged testis, which he reported had begun four or five months before his admission. Its cause was unknown, but he attributed it to wearing wet clothes. The veins of the scrotum were very large, and those of the cord were varicose. There was also much pain in the loins from the weight of the swelling. Sir Astley performed the operation, and found the disease to be of the encysted kind. The result is not mentioned, but we suppose it was favourable.

XXXIII.

ON THE ACRODYNIA, OR EPIDEMIC WHICH HAS REIGNED IN PARIS AND ITS ENVIRONS, SINCE THE YEAR 1828. By M. CHARDON, Jun.

THIS epidemic, although it has not consigned so many of our continental neighbours to their long homes as the political epidemy of July, 1830, has yet been productive of no trifling misery both in Paris and its neighbourhood, for two years past, nor are its ravages yet at an end. It is one of those mysterious visitations which evidently originate in exhalations from the earth, though the nature of these effluvia is entirely unknown.

This malady, generally unaccompanied by pyrexia, affects in a peculiar manner, the nervous system—especially by a painful sense of formication in the hands and feet—as also a numbness that invades first the members, and spreads afterwards to the trunk itself. The cellular tissue of the cutaneous structures becomes affected—the hands and feet swell—and œdema invades the face and several other parts of the body. The formication and painful numbness of

the extremities are so characteristic of the complaint—that, both in Paris and in the country, it is known by the name "*mal des pieds et des mains.*" On this account our author has given it a more classical title—ACRODYNIA—or pains in the hands and feet. It appears that this mysterious epidemic has affected immense numbers in France, and was not very dissimilar to the Dandy fever of the West Indies, which spread over so many islands of late years.

The complaint usually commenced by a sense of the most painful formication in the fingers and ankles, spreading thence to the arms, thighs, and even the trunk. The sensation was compared to a thousand punctures made with the point of a lancet. An intense heat aggravates the sufferings of the patients, and obliges them to keep their feet out of bed. The perversions of sensibility are extremely various and distressing. Many cannot put their feet to the ground without feeling as if they were treading on the points of pins or needles, &c. The muscular powers of the members are also much affected. Many people could scarcely move their lower extremities without the greatest suffering. The fingers were usually in a state of permanent contraction. Subsultus tendinum was no unusual phenomenon, together with cramps, spasms, and other torments.

An affection of the mucous membranes was not an accidental accompaniment, but a characteristic feature of the epimedic. Sometimes it amounted to acute gastro-enteritis, was attended with smart fever, and was only of short duration. The functions of the digestive organs were always much disordered. Cholera morbus was occasionally developed in the course of the disease. Inflammation of the conjunctiva was no unusual concomitant, as was also pulmonary catarrh. In short all the mucous membranes were more or less affected. Dysury and gonorrhœa were not unusual. The skin was affected in a great variety of ways—but an intolerable sense of stinging, succeeded by erythema, were the usual precursors of the different complaints. Eruptions of all kinds took place—some resembling urticaria, some like small pox, and others like chicken pox, pemphygus, &c. In fact there was no end to the cutaneous affections.

The next train of phenomena consisted in the establishment of dropsical effusions in various parts of the body—œdematous, ascitic, and anasarcous. Abundant perspirations were often seen to occur in a periodical manner. Sleep could not be obtained on account of the irritation and pains. The senses were often suddenly and strangely affected. Some lost sight, or hearing, or smelling almost instantaneously. The duration of the disease was as various as its symptoms. Some patients recovered in a few weeks—others required several months for convalescence. There are many who suffer to this day from attacks in the early part of 1828. The prognosis was favourable when the disorder of the internal organs was slight—unfavourable in opposite conditions. Immense numbers lost their lives by the epidemic or by the consequences which it left behind—especially dropsy.

In several of the hospitals, the most rigorous dissections were made, but no light was thrown upon the disease by the scalpel of the anatomist. M. Louis, at La Charité, examined very carefully some who fell victims to the most exquisite forms of the epidemic, and could not find any thing to account for the disease itself or the death of the patients. In some of the public establishments, however, it is stated that portions of the spinal marrow were found softened and partially disorganized.

Treatment. As may be imagined, the means of curing or alleviating this strange disease were numerously employed. Venesection was sometimes found useful, especially in the beginning, and where symptoms of congestion about the head existed. Under all other circumstances the relief was only momentary—or none at all. Leeches to the abdomen produced no mitigation of the colic and diarrhœa, though the doctrines of Broussais would assure us of their efficacy. They were much more useful when applied along the spinal column. So were cupping-glasses with scarification. Warm

bathing was beneficial—especially vapour and sulphur baths. The distressing sense of formication was occasionally soothed by saturine lotions and even by unctuous applications. Moxas applied to the spine were advantageous in a few instances. But the most remarkable benefit was obtained by blisters, especially when they were made to produce a purulent discharge. They were applied to the most painful parts, or to the track of the spine. They were dressed with the antimonial ointment.

Emetics were administered internally at the beginning, with some advantage. M. Cayol employed purgatives combined with opiates, and it was said with success. It is needless to detail the catalogue of internal medicines which were administered by different practitioners and at different hospitals. Few, if any of them, did good, as the disease generally ran its course in spite of physic.

Causes. Although this epidemic spared no class, yet it chiefly affected the poor. Among the troops, the officers suffered little, compared with the men. Males were much more numerously affected than females. The bread, the wine, and other species of provisions, were alternately accused as causes of the epidemic, but without the least foundation. The state of the air was suspected, with more justice; but no appreciable vitiation of the atmosphere was present, except a peculiar bad smell which infested several places where the epidemic prevailed, both in the neighbourhood of Paris and in some other places. But the true nature of the cause of this epidemic, as well as that of many others, remains in impenetrable obscurity.

In respect to the principal or primary seat of the disease itself, there has been much diversity of opinion. It was, at first, considered as rheumatismal—again, the spinal marrow was looked on as the principal seat of the malady, as evinced by the formication, the paralysis, and various other lesions of the nervous system. This opinion was strengthened by the fact, or at least the belief, that those remedies which were applied to the spine had most influence on the disease, such as leeches, blisters, frictions, &c. Strychnine considerably aggravated the symptoms. But the fact is, that the skin, the cellular tissues, the mucous membranes, the lymphatics, and various other structures of the body, were affected in this epidemic, and therefore it is not possible to confine its seat to any one organ or part.

Many facts are brought forward to show that the disease was communicable, or in other words, contagious. This we have no reason to doubt, since there are few epidemics that do not evince this character at some period of their course. The French physicians, however, have not subjected themselves to criticism, as many English have done under similar circumstances, by broaching the doctrine that the epidemic was *imported* from abroad!

It is hardly necessary to say that almost every kind of treatment was equally unsatisfactory—we might say, with no great violence to truth—INEFFECTUAL!

XXXIV.

ON THE GRINDERS' ASTHMA. By ARNOLD KNIGHT, M.D. Physician to the Sheffield Infirmary.

[North of England Medical and Surgical Journal, No. I.]

ANOTHER medical journal has commenced its career, with modest pretensions, but with very useful designs—"influenced only by a sincere desire of assisting the dissemination of knowledge." The plan of this journal is comprised in the following passage: "the work will assume less the form of a review or digest of general improvements in medicine, than of a receptacle of the local results of original investigation. It will consist chiefly *of* papers, founded on clinical observations, or the results of pathological and physiological inquiry:—to these will succeed select cases, &c." We wish

the journal every success, and we have no doubt that it will grow more practicial as it gets older.

The first paper which we shall notice is the eighth in the order of succession—on the grinders' asthma. This is a term given to the disease by the patients themselves, and is in fact, that form of consumption which prevails amongst the workmen who are employed in grinding the different kinds of cutlery in Sheffield and its vicinity. It bears little or no resemblance, however, to asthma, and is probably so designated by the sufferers, from a natural desire on their parts to conceal the fatal character of the disease.

"The articles which are ground in this neighbourhood are forks, awl-blades, fire-irons, razors, scissors, pen-knives, table-knives, large pocket-knives, files, joiners' tools, saws, sickles, and scythes. Some of these are ground on dry grind-stones, others on wet grind-stones, hence the grinders are divided into two classes, the dry, and the wet grinders—and there is a third class, who grind both wet and dry—altogether they amount to about two thousand five hundred, of this number about one hundred and fifty, viz. eighty men and seventy boys are fork grinders—these grind dry, and die from twenty-eight to thirty-two years of age.* The razor grinders grind both wet and dry, and they die from forty to forty-five years of age. The table-knife grinders work on wet stones, and they live to betwixt forty and fifty years of age. It may appear extraordinary that a disease, committing such ravages amongst so large a number of workmen, should have hitherto excited so little attention either in the profession or out of it. In most works which treat of pulmonary diseases, it is indeed mentioned that the fine particles of dust and steel, which are evolved in certain mechanical processes are frequent causes of consumption, but I am not aware that any treatise has been expressly written upon the subject, except by Hecquet in his 'Maladies des Artisans,' and Dr. Johnstone of Worcester, in the 5th vol. of the 'Memoirs of the Medical Society of London.' The former of these papers I have not seen, and the latter refers exclusively to needle pointing, a branch of grinding which is not carried on in this immediate neighbourhood. It must however be observed, that the grinders' asthma, as it exists amongst the Sheffield grinders, is a disease of recent origin. Until the beginning of the last century, grinding was not a distinct branch of business, but was performed by men who were also employed in forging, and hafting; hence they were exposed but seldom, and then only for a short time, to the pernicious effects of grinding. They worked also in large lofty rooms, which did not contain more than six or eight stones—were open to the roof—without windows—and with the cog-wheel always in the inside—thus, such a circulation of air was constantly kept up, that the small quantity of dust raised from these few stones was soon carried away. The wheels were always situated in the country—by the side of running streams, and frequently two or three miles from the habitations of the workmen, so that they had the advantage of pure air, and moderate exercise, in passing to and from their employment. Moreover, for several months during each Summer, they could not work more than four or five hours a day, owing to the scarcity of water. The grinders at that time lived chiefly in the country—had less intercourse with each other, and were consequently less exposed to those excesses which frequently prevail, where large bodies of workmen are congregated together—they were indeed distinguished for their simple manners, and temperate habits. This was the golden age of the grinders.

About the beginning of the last century the division of labour was gradually introduced into the manufacture of cutlery, and grinding became the sole employment of

* Some exceptions to these general remarks may be met with, amongst those who have continued to work at open wheels in the country, and amongst others, who have been absent from their employment for many years together as soldiers.

the grinder. Sometime after the middle of the same century, several grinders were observed to die of complaints nearly similar. The attention of their companions was excited, and they found the complaint was peculiar to themselves; still, however, it was far from being common, for they continued to enjoy all the advantages which their predecessors had possessed, except that being no longer employed in hafting and forging, they passed all their working hours at the grinding wheel.

Towards the close of the last century, it was found that the business of grinding had so much increased, that the grinding wheels already established were insufficient; but as every fall of water within five or six miles of Sheffield was occupied by wheels, it was impossible to add to their number. In this emergency, those connected with the trade resolved to avail themselves of the power of steam, and in the year 1786, the steam engine was applied to the purposes of grinding. A great revolution then took place in the circumstances of the grinder. He now worked in a small low room, where there were eight or ten stones, and sometimes as many as sixteen persons employed at one time. The doors and windows were kept almost constantly closed, a great quantity of dust was evolved from so many stones, and there was scarcely any circulation of air to carry it away. The steam engine, unlike the stream that had formerly supplied his wheel, allowed him no season of relaxtion—it worked on an average eleven hours in the day, and six days in the week. The grinders began to reside more generally in the town—most of them lived near their respective wheels; their habits became less temperate, whilst the steady and industrious having now an opportunity of working as much as they pleased, died at an earlier age than even the idle and dissipated. So general has this destructive malady become of late years, that the result of some inquiries, made in 1822, shewed that out of two thousand five hundred grinders, there were not thirty-five who had arrived at the age of fifty, and perhaps not double that number, who had reached the age of forty-five: and out of more than eighty fork grinders, exclusive of boys, it was reported that there was not a single individual thirty-six years old!" *

This is a melancholy picture of the "march of intellect!" It is natural to suppose that humanity would endeavour to find out some remedy for the evil; and, accordingly many expedients were suggested. Dr. Johnstone proposed that the mouth and nostrils should be covered with crape; but this was soon found to be ineffectual, or rather impracticable, for the dust from the stone, and the moisture from the breath rendered the crape nearly impermeable, and then the heat and oppression of breath became intolerable. Mr. Abraham next suggested magnets so arranged as to intercept the particles of dust in their passage to the lungs. This invention was so highly valued that the Society of Arts rewarded the inventor with a large gold medal, and his fellow townsmen presented him with a service of plate, value one hundred pounds.

"Such were the favourable auspices under which this invention was submitted to the attention of the grinders; yet this 'life preserving apparatus' was never generally adopted by them, nor even partially for longer than five or six months. The trouble of arranging the magnets, and of removing the dust as it collected upon them, was too great for the grinders; besides, it was the metallic particles which the magnets were chiefly calculated to arrest, and there is reason to believe, from facts that will be adduced hereafter, that the grit dust is not only the most copious, but also the most injurious part of what is inhaled by the grinder. Mr. Abraham's merit, however, was not confined to the application of magnets for the relief of the grinders, he suggested another contrivance, which though less scientific has proved of more

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* I am informed there is a fork-grinder above fifty years old who has worked at a steam-wheel—he is a man of irregular habits.

practical utility by giving rise to that series of improvements, which have been since more or less adopted. It consisted of an additional apparatus which was formed of a piece of coarse sacking or flannel, attached to a frame of wood; this was to be placed before the stone, and closely behind the safety guard of magnets, so as to secure all the dust which they had failed to arrest. This sacking or flannel was to be kept constantly wet, and the dust was to be shaken out of it when sufficient had been accumulated."

But this also failed, and all apparatus is now almost entirely abandoned. It is remarked by Dr. Knight that immediately after the application of steam to the purposes of grinding, this fatal malady increased rapidly—and that it is, at present, almost universal among those employed at grinding wheels worked by steam engines.

Dr. Knight next enters into a somewhat prolix notice of the opinions entertained by different writers respecting the influence of dust when inhaled into the lungs, as exciting asthma. These notices we shall pass over. The following is the rise and progress of this afflicting malady.

"Those who are to be brought up grinders, usually begin to work when they are about fourteen years old: there are, however, many exceptions to this custom, as the children of grinders are frequently employed in the lighter branches of the trade as early as eight or nine years of age. Such as are predisposed to pulmonary complaints soon begin to experience the injurious effects of grinding; and as at that time of life they are not too old to be put to other trades, they occasionally leave the wheel, and thus preserve both their lives and their health, whilst their more robust companions are sacrificing both. Grinders, who have good constitutions, seldom experience much inconvenience from their trade till they arrive at about twenty years of age: about that time the symptoms of their peculiar complaint begin to steal upon them, their breathing becomes more than usually embarassed on slight exertions, particularly on going up stairs, or ascending a hill; their shoulders are elevated in order to relieve their constant and encreasing dyspnœa; they stoop forward, and appear to breathe the most comfortably in that posture in which they are accustomed to sit at their work, viz. with their elbows resting on their knees. Their complexions assume a dirty, muddy appearance; their countenance indicates anxiety; they complain of a sense of tightness across the chest; their voice is rough and hoarse; their cough loud, and as if the air were driven through wooden tubes: they occasionally expectorate considerable quantities of dust, sometimes mixed up with mucus, at other times in globular or cylindrical masses enveloped in a thin film of mucus. Hæmoptysis frequently occurs; the blood is seldom florid or in large quantities; there is frequently a perceptible thickening about the larynx or trachea, with tenderness and cough on pressure. The expectoration is variable, frequently in small quantities, and frothy; in the more advanced stages, copious, and purulent; it is sometimes of a dusky red colour, and occasionally extremely fetid. The pulse, in the earlier stages, appears sometimes not to correspond with the severity of the disease, as it then frequently ranges from 80 to 90, when the concourse of other symptoms would lead us to expect that it should beat from 100 to 120: in the advanced stages, as in other cases of pulmonary consumption, it is almost uniformly quick. About thirty years of age the dry grinders become incapable of performing their usual labour, the wet grinders are similarly affected about forty. The sense of *fastness* under the sternum now grows very distressing; the lungs feel as if they were choked up with dust; the cough becomes incessant: the expectoration copious, and purulent; and the pulse quick; dropsy in some form or other not unfrequently supervenes. Hæmoptysis, inability to lie down, night sweats, colliquative diarrhœa, extreme emaciation, together with all the usual symptoms of pulmonary consumption, at length carry them off; but not until they have lingered through months, and even years of

suffering, incapable of working so as to support either themselves or their families."

The course of the disease, however, is frequently modified by the supervention of inflammatory attacks, rendering the original malady much more dangerous.

The treatment of Grinder's asthma is, unfortunately, very unsatisfactory. There can be little hope of cure, so long as the causes continue to be applied. The men seldom have recourse to advice till they are unable to work—and they return to labour as soon as they gain a little relief. Thus, he can never, with strict propriety, be said to be cured.

The treatment of the first stage is simple and obvious. Rest, an emetic, leeches, the antiphlogistic regimen, diaphoretics, mercurials, and saline aperients, constitute the whole of the treatment. Under these remedies the patient usually returns to work in ten days or a fortnight. In the second stage of the disease, the attack is more obstinate, and the relief less decided. Besides leeching and cupping, it is necessary to keep up counter-irritation on the external fauces and chest, by blisters, antimonial ointment, and setons. Digitalis and colchicum are useful; and mercury pushed so as slightly to affect the gums is sometimes beneficial. Even in this stage, recovery sometimes takes place, when the patients are removed from the operation of the causes. During the late war, grinders frequently went into the public service, and there regained their health. In the third or ulcerated stage, the case is hopeless, and medicines can only smooth the way to the grave. The pathology of the disease must be inferred from the symptoms, for it appears that hitherto no post-mortem examinations have been permitted—or at least made. We wonder much at this, for even in the most obscure villages, dissections are occasionally allowed by friends, when proper representations are made by the medical attendants.

XXXV.

CASE OF INFLAMMATION AND OBSTRUCTION OF THE VEINS, ACCOMPANIED BY A SWOLLEN STATE OF THE LIMB. By Mr. T. H. HOLBERTON.

(Med. Chir. Trans. Vol. XVI)

THE present volume of the Medico-chirurgical Transactions so abounds with cases of this kind, that we cannot but perceive the activity of one of the secretaries (Dr. Robert Lee) displayed in the collection. Not that we blame this talented young physician for drawing support for his doctrines from all quarters—but because we cannot help feeling on our guard against the natural endeavour to strengthen an hypothesis by every possible means. The same objection, however, lies against all these cases of phlebitis—namely, that they are different in their nature from the common phlegmatia dolens of lying-in-women. We shall give Mr. Holberton's case, with no abbreviation, as the case is very short.

"*Feb. 26th*, 1830. Robert Willis, æt. 17, No. 3, Providence-court, North Audley-street, has laboured for ten months under pulmonary consumption, in the last stage of which he at present lies, extremely emaciated; with a hurried pulse, hectic fever, copious night sweats, purulent expectoration and diarrhœa, which, *together with pain in the abdomen*, has been very distressing during the last eight weeks.

Three weeks ago he was seized with pain in the right ham, and immediately afterwards *a hot painful swelling of the whole limb*, and a considerable diminution of its muscular power, took place. At present the limb is two-thirds larger than the left, hot and painful. It is colourless, excepting at the groin and inner side of the knee, where the superficial veins are enlarged and distended. The *thigh pits* when rather firmly pressed, is hotter and more painful along the course of the crural vessels than at its outer side; *the femoral vein is clearly traced, like a hard cord, from the groin to where it perforates the tendon of the triceps*; and the

saphena at its upper part gives a similar sensation to the touch.

The right foot and ankle are very *œdematous*, and the leg also pits on pressure. There are great heat and tenderness in the hypogastric region, and especially in the right inguinal. Here a greater number of superficial veins are enlarged than on the opposite side, on which also, indeed, some are preternaturally distended. Half a dozen leeches were ordered to the right inguinal region. The wounds bled profusely for some hours, and afforded relief.

27th. The patient is easier in the lower part of the abdomen, and in the right thigh and leg. He can bear pressure rather better along the course of the femoral vessels than yesterday. The *anasarca of the foot is increased.* Being weak and emaciated, he was unwilling to bear a repetition of the leeches, and, as the subsequent treatment consisted only of emollient and anodyne applications, it is unnecessary to enter into detail. He died on Friday morning, 5th inst. (March) 3 o'clock.

Examination, on the afternoon of the same day. Present, Dr. Ley, of Half-Moon Street, and Dr. Robert Lee, of Golden Square, the latter of whom was kind enough to visit the patient with me on the 26th ult.

The lungs were found extensively diseased. The veins from the middle of the inferior cava throughout the course of the right femoral, together with the left common iliac, were removed. Externally they were in parts knotty and hard and variously coloured, viz. whitish, dark, greyish, &c. The density of the cellular membrane around each vein corresponded with the quantity of lymph effused into the cavity of the vessel. The arteries in contact with these veins were adherent to them in the same proportion.

Internal Appearance of the Veins—In the vena cava for two inches above its bifurcation coagulable lymph, a few drops of puriform reddish matter, and an adventitious membrane, were found; the latter adherent to the inner surface of the vein, which, on the removal of the membrane, presented roughened bloody points. The coats were thickened where they contained the membrane, but healthy above this part.

The right common iliac vein was affected in a similar manner to the inflamed portion of the vena cava, but more intensely, being more loaded with coagulum and having its coats thicker.

The same may be observed of the right external iliac. It contained more adventitious membrane, and its coats were thicker than those of the right common iliac; and the right femoral and its branches, particularly those about the groin, were even, if possible, more distended than the right external iliac.

At the mouth of the right internal iliac, and an inch and a half down the vessel, a firm coagulum and false membrane were found, most materially obstructing, if not entirely preventing, the circulation. Yet this vein did not seem so completely blocked up as those already mentioned, neither were its coats by any means so thick as theirs, though, where the coagulum was lodged, thicker than natural. In cutting off the vessel, about half an inch remained below this point, and was of healthy appearance. The left common iliac and left external iliac were healthy. Serous fluid oozed from the incisions made in the thigh, the cellular membrane of which seemed denser than natural.

The mucous membrane of the lower fifth of the small, and of the whole of the large intestines, was ulcerated. This altered condition of the bowel increased as it descended, and the greatest portion of the lining membrane of the rectum was destroyed."

No one can doubt the existence of phlebitis in the above case—but who can confound it with phlegmatia dolens who has ever had an opportunity of seeing the latter disease?

XXXVI.

AN ACCOUNT OF A CONCRETE OIL EXISTING AS A CONSTITUENT PRINCIPLE OF HEALTHY BLOOD. By B. G. BABINGTON, M. D. F. R. S.

IN the recent volume of the Medico-Chirurgical Transactions, this paper of Dr. Babington's is printed. It appears that the only method by which this concrete oil was separated from the blood was by agitation with æther—though from milky serum, in which the said oil abounds, it may be obtained by means of alchohol, or even by simple evaporation.

"This oil is obtained from the serum of healthy blood, whether that serum be milky, opalescent, or clear, and appears to be the chief, if not the only cause, of the colour of healthy serum.

It is of a deep yellow hue, is semi-solid, and melts at a temperature of 90° Fahrenheit. It is lighter than water, its specific gravity being ·918. From its solution in æther it chrystallizes by very slow evaporation, at a low temperature, in radiated tufts. It burns with a brilliant light, has a faint and peculiar odour, resembling that of a wet bladder, forms soaps with the alkalis, and in its general characters resembles other animal oils. It is uniform in colour, in general appearance, and in all its properties, from whatever kind of serum it be obtained."

About one-third part of æther should be added to the serum in a well-corked phial, which should be reversed a few times, without violent agitation. This movement is to be repeated twice or thrice, at intervals of a day or two; when, after a final rest of some hours, the æther will be found to have arisen to the top of the liquid, and to have acquired by impregnation with oil, a yellow colour of more or less depth, according to the proportion of oil which the serum may have contained. By means of a glass syringe, the æthereal solution may be collected from the surface of the serum, and, on evaporation, will yield the material in question, together with a small quantity of albumen, which the æther had taken up, and which may be easily separated by a heat sufficient to coagulate it.

Hewson came to nearly the same conclusion as Dr. B. respecting the milky serum of blood—a phenomenon which has been attributed to chyle, and has puzzled physicians to explain it. Dr. Christison still more recently employed æther as a solvent of the oil in question; so that Dr. Babington has been anticipated in his discovery, though he does not appear to have been acquainted with Dr. Christison's experiments when his own were made.

While analyzing Dr. Babington's papers, we received the following case from Dr. Wilson at Rio Janeiro. It evidently bears on the present subject.

CASE OF MILKY FLUID DISCHARGED FROM THE SCROTUM. By JOHN WILSON, M.D. of His Majesty's Ship Warspite.

"Some account of the following case will, I think, be interesting, because it is, in many respects, singular in itself; and because it is very similar to one noticed in the Medico-Chirurgical Review for April, 1830, communicated by Mr. Maxwell to Dr. Titley.

Case. Senhor ———, a respectable merchant, in Rio Janeiro, is about 40 years of age, and in the enjoyment of good general health. Five years ago he had an acute inflammatory affection of the scrotum, attended by sharp fever; there was at the time much tumefaction, and severe pain; but it is not known whether the testicles were implicated in the disease. At the end of three weeks the pain and febrile disturbance left him, and the tumefaction was reduced considerably; but the scrotum remained larger than in health, was thickened, and doughy to the finger. In this state he returned to his ordinary occupations, and took a good deal of exercise. Little change was observed till the expiration of two years, when the parts became larger, had an œdematous appearance, and became gradually studded with soft smooth shining tubercles, in general appearance resembling small grapes. He had no pain, but suffered inconvenience from the size and weight of the tumour. In this state of matters, while walking the street, he suddenly felt a fluid running down his thighs, and, going into his house, found that one of the grape-

like processes had given way, and that there was issuing from it a milky fluid, slightly streaked with a substance resembling, in appearance, chocolate. The discharge continued some hours, and, according to his own account, amounted to a quart. He had no further inconvenience for seven or eight days, when another discharge of similar kind and quantity took place. In this way he went on upwards of two years. Once a week, on an average, the discharge recurred, varying in quantity, but generally amounting to a pint, and retaining the appearance of milk, streaked with chocolate. During the whole period his appetite, digestion, and general health were good, and he rather gained than lost flesh. Eight months ago the scrotum was scarified superficially at a number of points, whence the said fluid issued copiously; he afterwards employed some preparation of iodine with friction to the parts, and took a course of calomel, with cicuta, till it induced salivation. Since the use of these remedies there has been less tumefaction, and little discharge, except when the parts are punctured.

Such is his own account, confirmed to a certain extent, and no where contradicted, by medical testimony.

At present the scrotal tumour is as large as a child's head of ordinary dimensions, at two years of age. On the left side of the raphe, which is tense, thick, and cord-like, it is soft, smooth, and equal, and has a sarcomatous feel. On the right side, at the upper anterior part, it is more prominent than the left; is irregular on the surface, and feels boggy—the colour being healthy, as it is over the whole surface. At this place, within a short distance of each other, there are four small nipple-like processes, from which he can at any time produce the fluid in question. A few days ago, for my satisfaction, he touched two of them with a lancet, when there issued from each, in stream, a fluid like milk tinged with blood, to the amount of a gill in about ten minutes. He then arrested the discharge by the application of court plaister, stating that it would continue to flow for hours, if left to itself; and it certainly showed no sign of being exhausted, or tendency to stop. It coagulated as fast as it fell into the basin, but soon after separated into two parts; one, being much the largest, a white, homogeneous, milk-like fluid, and the other a reddish, being loose coagulum, resembling the crasamentum of healthy blood.

I do not offer any conjecture regarding the source, formation, or nature of this fluid, contenting myself at present by stating, that it bears considerable likeness to the milky, or serous blood drawn from the veins, in particular conditions of the body.

The subject continues healthy and robust. He has no other appearance of disease, except considerable enlargement of the femoral lymphatics, on either side, opposite the scrotal tumour, and apparently the effect of its pressure. The testicles, as far as can be ascertained through a scrotum so much thickened, are healthy. It deserves remark, that the tumour, after the discharge of the fluid, though diminished, is not diminished to an extent commensurate with the quantity of matter discharged.

For the knowledge which I possess of this case I am indebted to Dr. Williams, a resident English practitioner."

XXXVII.

History of a Case of Stammering.

By Dr. Bostock.

[Med. Chir. Trans. Vol. XVI.]

Much has been written, and more has been promised, of late years, respecting the cure of stammering; and we ourselves have seen most beneficial effects result from a little artificial management in this disagreeable defect. But unfortunately, the benefits are seldom other than temporary; more, we firmly believe, owing to the inveteracy of habit and inattention, than to imperfection in the mode of treatment.

The case related by Dr. Bostock was that of a boy, who, at the age of two or three years, became suddenly and unaccountably affected with severe stammering. As the boy was plethoric, purgatives were prescribed, and as the effects appeared so favourable, they were often repeated, and still with temporary advantage. At length

another auxiliary, or rather succedaneum, was tried—low diet, especially abstinence from animal food, and a very slender allowance of vegetables. This system was rigidly adhered to for several years, and the effects were sufficiently obvious in the boy's countenance and aspect. He became much less plethoric and florid; but was fully adequate to a participation in all the sports and exercises natural to his age. By a steady adherence to this discipline for about eight years, the complaint was kept at bay, but whenever any relaxation in the diet took place, or when the purgatives were omitted, or too long delayed, symptoms of the impediment immediately appeared. When about twelve years of age, the tendency to stammering seemed to be so far subdued, that a relaxation of the system was not followed by the usual consequences. Being put to a public school, where diet could not be so well attended to, a relapse took place, and proved extremely obstinate, so as to require a long and severe course of purgatives. The youth (now in his 15th year) may be said to be free from the complaint, and possesses a considerable volubility and rapidity of pronunciation. He has, however, occasional tendencies to relapse, when the bowels are disordered.

Some years ago, we had opportunities of seeing the means employed by two celebrated practitioners in the art of curing impediments of speech; and as the injunction of secrecy is no longer necessary to be observed, we shall state the principal means employed, and certainly with considerable success.

The fundamental principle is to fill the lungs with air, before the stammerer attempts to articulate—and the next step is to compress, by means of the voluntary muscles, the rima glottidis, so that the air, in rushing out, may make some sound; that is to say, the stammerer is to commence an expiration as if he were going to sing gently. If he now read or pronounce sentences, while the air is issuing through a narrow channel, he will be surprised to find that no impediment to utterance occurs. By practising this mode of speaking or reading and never continuing to speak when the air is nearly exhausted, but always taking in a full inspiration and articulating with a narrow passage, he will soon have the command of speech. This constitutes, we may say, the entire secret, and we have seen people, in a few days, acquire uncommon facility in the delivery of their sentences. Unfortunately, there is such a perversity attending most stammerers, that they will not attend to the rules by which they were first cured, and most of them relapse into their former mal-habits. In one case which came under our painful notice for many years, any disordered state of the stomach or bowels invariably exasperated the stammering.

XXXVIII.

CHIRURGUS ON CANCER OF THE JAWS.

I take up the pen to add my mite to the cases of "cancer of the jaws," which you have published in your last number, (October, 1830) and to endeavour "to decide if M. Delpech is right or wrong in his opinions respecting their origin." That the mucous membrane of the nares, including that which lines the various cells communicating with them, is subject to nearly all the variety of tumours, from the delicate vesicular polypus to the medullary sarcoma, is verified by the different authorities on the subject, from Astruc's Traité des Tumeurs, to Travers on Malignant diseases; or by an examination of one or two musea of pathological anatomy. Now, if we find the same vesicular polypus growing, with its delicate pedicle, from the mucous membrane investing the parietes of the antrum maxillare, that we do from the membrane clothing the ethmoid bone, is it at all surprising we should find the same vascular sarcoma in the antrum that we do in the nares, or even in the œsophagus? Is it in the least degree marvellous that we should find the same medullary sarcoma, or milt-like tumour in the antrum that we do in the stomach? They grow from the mucous membrane, the gastro-pulmonary. "Scirrhous cancer," says Mr. Travers, "originates in some or other description of secretory structure—its seats are the follicles of the

mucous membrane." "Medullary cancer affects any or all textures, without exception." "Cancer of the antrum begins upon the lining membrane." "Cancerous fungus of the antrum grows from the whole surface of the cell. I have seen it says Mr. Travers,) commencing in and proper to the nares—it is a growth to which the common lining membrane is subject." "Polypi, vesicular and fleshy, form in all the cells and chambers of the bones of the face and head." Besides the many dissections recorded of tumours in the antrum, the most satisfactory of which are to be found in the "Memoires de l'Academie Royale de Chirurgie," I have now examined six, but could find no disease affecting any of the neighbouring nerves; they were only involved in the general mass. I should, therefore, presume that "the posterior palatine nerves, and the spheno palatine ganglion with its filaments, as far as the superior maxillary nerve" mentioned by Delpech, were excited to assume the same morbid action—"the medullary disease"—exactly in the same manner as the nerves of a stump, after amputation, have their neurilematic sheaths thickened with lymph, and become involved in the bony deposit which sometimes takes place from the edges of the sawn bones.

There are some cases lately published in the medical periodicals to which I beg to call your attention, and one of them I observe has the morbid appearances described after death. It is detailed in the Lancet for for the 10th April, 1830, but no mention is made of any disease having attacked the nerves, although the tumour extended upwards, and involved the brain itself. Similar cases are mentioned in Hodgkin's Catalogue of Preparations in the Museum of Guy's Hospital, wherein one of them began in the sphenoidal cells. In the same periodical, another case is described, wherein the entire upper jaw-bone was excised, by Mr. Lizars, in the infirmary of this place, and which I had the good fortune to witness. I examined carefully the morbid growth after its removal, but could not perceive any diseased nerves exterior to the bony parietes. I have also, since reading M. Delpech's views, examined the pathological collections of this city, but could not discover any diseased nerves in any specimen. I saw Mr. Liston remove the upper jaw-bone the other day in the infirmary, for diseased antrum, but could not observe any disease of the palatine nerve. Excision of the whole upper jaw-bone which I have now seen done by our two great surgeons, Liston and Lizars, is a more scientific operation, and a more certain cure for these diseases of the antrum, than that followed by M. Delpech, which we, in our younger days witnessed with horror, besides being attended with failure. In March last, I visited a man labouring under an acute form of disease of the antrum maxillare, and, to my surprise, he completely recovered.

His face was enormously swollen, the skin erysipelatous, the eye of the affected side shut up, the mouth with difficulty admitted of being opened half an inch—a profuse discharge of ichorous matter flowed from the antrum, at an opening above the bicuspides and at one of their alveolar sockets, the teeth of the affected side having fallen out. The palatine plate, the alveolar processes, and the outer wall of the antrum, were all soft, spongy, and tumefied. On incising both of these points with the bistoury, matter flowed, and on inserting a probe, it passed deeply into the antrum, apparently among thick, pulpy substance.

Incisions were repeated every second or third day, for fifteen or twenty days, when the tumefaction, discharge of matter, and all remains of suppuration and inflammation, disappeared. On first view of this patient, I considered him past all relief. I presumed that the antrum contained a tumour of the medullary character, and that it had advanced so as to excite erysipelas, with hectic or irritative fever.

The medullary tumour which attacks the gum of the upper jaw, near the bicuspides, I have seen mistaken for the protrusion of the medullary sarcoma from the antrum.

Yours,

Chirurgus.

XXXIX.

CASE OF PHLEGMATIA DOLENS, CAUSED BY INFLAMMATION OF THE VEINS OF THE LOWER EXTREMITY, EXCITED BY MALIGNANT ULCERATION OF THE CERVIX UTERI. By WILLIAM LAWRENCE, Esq.

[Med.-Chir. Trans, Vol. XVI.]

ALTHOUGH we are very far from agreeing with Mr. Lawrence, that "the following case *completely confirms* the interesting and important observations respecting the nature and causes of phlegmatia dolens, lately communicated to the Society by Robert Lee"—and for this simple reason, that we do not consider the case as one of phlegmatia dolens at all—yet we shall give it in the words of the author.

"Anne Dawson, forty years of age, a married woman who had borne several children, was received into St. Bartholomew's Hospital under my care, on the 12th of November 1829 Her complexion was sallow, and the expression of the countenance altogether very unhealthy. She had pain in the loins, frequently shooting towards the hypogastric region, which was tender on pressure; costive bowels; restlessness; and sanious discharge from the vagina. She had not menstruated for several months. For the last six months she had laboured under incontinence of urine; she had perfect use of her legs, and full power over the sphincter ani. There was no tenderness in the region of the spine. Instead of the os tincæ and cervix uteri, a large irregular ulcerated excavation was found at the posterior end of the vagina. Anodynes and the occasional use of castor oil were directed, and afforded some relief.

About the 30th of November, increased uneasiness was experienced in the lower part of the abdomen, with feverish symptoms not of a severe description; the pulse was sharp and frequent, the tongue white, the skin warm, and the countenance slightly flushed. The right lower extremity swelled in its whole extent, with some increase of heat, and pain on motion, which was performed with difficulty. The colour of the limb was not altered; the swollen part of the thigh was tolerably firm, the lower part of the leg, and the foot pitted on *pressure*. There was pain in the course of the femoral and iliac vessels; and the internal saphena vein could be traced at the upper part of the thigh by a hardened knotty feel. I considered the disease to be essentially the same as the Phlegmasia Dolens, occurring in women recently delivered; there could be no doubt that the large veins of the thigh were inflamed; and the observations I had heard from Dr. Lee led me to conclude that inflammation had been excited in the veins of of the uterus by the disease in its cervix, and had extended from them to the iliac and femoral venous trunks. I ordered twelve leeches to the front of the thigh, over the course of the femoral vein; that the bleeding from the orifices should be encouraged by fomentation, and the part afterwards covered with a bread poultice. A saline draught, with a drachm of the sulphate of magnesia, was also directed every six hours. On the next day the swelling of the thigh was less; the anasarcous state of the leg and foot remained. There was less pain, and greater freedom of motion. The feverish symptoms were lessened.

The pain returned on the 25th, when the leeches were repeated with benefit. She gradually improved from this time; the tenderness at the lower part of the abdomen being diminished, and the incontinence of urine less troublesome. The latter symptoms, however, with a discharge from the vagina, at first supposed to be menstrual, returned about the 16th of December, and were relieved by alum injections, with the internal use of dilute sulphuric acid and tincture of opium. On the 18th, violent hæmorrhage from the uterus came on early in the morning, and was speedily fatal. A large quantity of blood had flowed before she became aware of the circumstrance, and called for assistance.

Examination. When the body was examined, on the second day after death, the fundus of the uterus was found moderately enlarged and firm; the cervix had been des-

troyed by that kind of phagedenic ulceration, which is usually called cancer of the uterus. The rectum and sigmoid flexure of the colon adhered firmly to the uterus; and, but for this adhesion, the ulceration would have penetrated the cavity of the abdomen. The cellular and adipose substance round the lower part of the uterus, and neighbouring portion of the vagina, were thickened and indurated, particularly on the right side. The hypogastric vein, involved in this diseased mass, was closed, in consequence of previous inflammation of its coats; and and the same change had occurred in the internal iliac, the common iliac, the external iliac, the femoral and profunda veins, as well as in the internal saphena, all of which were completely impervious. The affection terminated above at the junction of the common iliac vein with that of the opposite side; the latter vessel and the inferior cava being quite natural. The saphena was closed for a length of about four or five inches beyond which it was natural. The profunda was cut through near the femoral vein, and the latter was divided as it passes the tendon of the triceps. The disease extended in both these vessels beyond the situations where they had been divided; but its inferior limits were not ascertained. The right spermatic vein was closed in its lower half. The coats of the affected vessels and the surrounding cellular substance were a little thickened, and their cavities were plugged by a closely adherent, and tolerably firm substance of a light brown colour. At some parts the vessels and their contents were of a dark livid hue."

To our obstetric brethren who have opportunities of seeing the phlegmatia dolens of lying-in-women, we recommend a careful perusal of the above case, and if they find that it corresponds in history, symptoms, and termination with the disease under which it is classed, then they may conclude that we are entirely wrong in our estimation of the nature and cause of phlegmatia dolens.

XL.

Dr. Houston on the Mucous Membrane of the Rectum.*

The structure, form, and disposition of the tunics entering into the composition of the rectum, ought, of course, to be familiar to all who venture to meddle with this gut. Yet they certainly are not so, and probably the majority of the reputed strictures of the rectum are not strictures at all, but merely some of the natural impediments offered to the introduction of foreign bodies. Dr. Houston whilst engaged in anatomical preparations illustrative of the peculiar and relative anatomy of the parts in the pelvis, discovered the existence of valves in the rectum, formed by its mucous membrane. The mode of exhibiting them consists in distending and hardening all the parts with spirit previously to being cut open.

"The valves exist equally in the young and in the aged, in the male and in the female; but in different individuals there will be found some varieties as to their number and position. Three is the average number, though sometimes four, and sometimes only two are present in a marked degree. The position of the largest and most regular valve is about three inches from the anus, opposite to the base of the bladder. The fold of next most frequent existence is placed at the upper end of the rectum. The third in order occupies a position about midway between these, and the fourth, or that most rarely present, is attached to the side of the gut, about one inch above the anus.

In addition to these valves, of tolerably regular occurrence, there are frequently several intermediate smaller ones, but which, from their trifling projection and want of regularity in their situation, merit comparatively little notice.

The form of the valves is semilunar; their convex borders are fixed to the sides of

* Dublin Hospital Reports, Vol. V.

the rectum, occupying in their attachments from one-third to one-half of the circumference of the gut. Their surfaces are sometimes horizontal, but more usually they have a slightly oblique aspect, and their concave floating margins, which are defined and sharp, are generally directed a little upwards. The breadth of the valves about their middle varies, from a half to three quarters of an inch and upwards, in the distended state of the gut. Their angles become narrow, and disappear gradually in the neighbouring membrane. Their structure consists of a duplicature of the mucous membrane, enclosing between its laminæ some cellular tissue, with a few circular muscular fibres.

The relative position of the valves, with respect to each other, deserves attention. That situated opposite to the base of the bladder most commonly projects from the anterior wall of the gut; the valve next above from the left, and the uppermost from the right wall: that near the anus, which is of least frequent occurrence, occupies a place when present towards the left and posterior wall. Many deviations from these stated points of attachment for the folds will be found to occur, but the arrangement is nevertheless always such, as to form, by their being placed successively on different sides of the gut, a sort of spiral tract down its cavity.

In regard of the sacculated form which the rectum acquires by the presence of these valves, the gut resembles somewhat the colon in the condition of its interior; but in the peculiar spiral arrangement of the valves, it bears more an analogy to the large intestine of some of the lower animals, in which, as for example the cæcum of the rabbit, the large intestine of the serpent and dog-fish, a continuous spiral membrane traverses the cavity from end to end, and gives to the alimentary matters a protracted winding course towards the anus."

The presence of these valves may be ascertained in the unprepared body, if looked for soon after death, and before the tonic contraction of the gut has subsided. They then over-lap each other so effectually, as to require considerable manœuvre in conducting a bougie or the finger along the cavity of the intestine. Mr. Crampton uses a rectum bougie bent with a couple of light spiral turns, and in the introduction moves it about gently between his thumb and fingers. He was induced to adopt this form from having noticed that of itself it assumed such, when allowed to become soft by remaining some time up the gut. He practices the spiral movement from observing that, during its return down the canal, after being thus modelled, it is disposed, if handled loosely, to take on that course. Dr. Houston suggests that these valvular folds may possibly become the most frequent seat of stricture, and he mentions some points connected with that affection which tend to support in some measure his suggestion.

XLI.

OBSERVATIONS ON SOME OF THE AFFECTIONS OF THE FINGERS AND TOES, ATTENDED WITH FUNGOUS GROWTHS. By FRANCIS RYND, A.B., &c. &c.

To all who are engaged in the practice of their profession, the affections of the fingers and toes will not be devoid of interest, though speculative philosophers may deem them of very subordinate character. They have attracted much attention from the earliest ages in which medicine was cultivated, and yet they are not seldom an opprobrium to the art of surgery at present. The papers of Mr. Wardrop and M. Royer Collard are acknowledged by Dr. Rynd to be good, yet he thinks that the results of his own experience may not be unprofitable additions to the observations of those writers.

The surgeon should always remember well the nature of that membrane by which the nail is secreted, and bear in mind that it is reflected around, or rather behind the root of the nail, at the distance of two or three lines from its posterior border. It is exquisitely sensible, and much disposed to throw out fungous growths.

"I believe the membrane or matrix of the nail exhibits three forms of fungoid growth, similar in their appearances, and the distress they occasion, differing in their situations and the causes by which they are produced. One of these is where the matrix is the original seat of the disease; it occurs most frequently idiopathically, or at least no satisfactory cause can be assigned for its production, but occasionally it seems to arise from some external violence, such as a blow or bruise. The second is that which owes its origin to pressure of the nail on the membrane, or what is termed the nail growing into the flesh. And the third *is a fungous growth of the matrix, symptomatic of, and apparently occasioned by, the existence of an abscess underneath it.* That the first two of these may eventually become the same, or that the constant pressure of the edge of the nail on this most sensible structure will involve it altogether in one mass of disease, cannot be controverted, and then the same treatment will be applicable to both: but if the third or symptomatic species happens to be mistaken for either of them, and the surgeon's attention be directed to the fungus instead of the abscess, of which it is an indication, months of misery will be inflicted on the patient, who only recovers when the abscess bursts or is opened.

That disease, which for the sake of arrangement I have termed idiopathic, and which is perhaps the true *onychia maligna*, commences usually at the root of the nail, it may be with a small collection of matter like the cutaneous or superficial paronychia. This bursts, and the posterior edge of the nail is seen detached, while a small pale-coloured and exquisitely painful fungus projects behind it; as the nail is thrown off the fungus increases, becomes red, and if pressed upon by the nail, the pain is excruciating: sooner or later the entire nail is thrown off, but it does not leave a fungous growth regularly occupying its former situation; the matrix has been secreting its proper material of which the nail is composed, but it has done so irregularly, unhealthily, and in patches, and the irritation and pressure occasioned by those small portions of the nail which usually adhere to the surface by one edge only, produce deep and formidable ulcerations. The extremity of the toe or finger (and the great toe is very frequently enlarged) now appears to be expanded in breadth, with a large ulcer occupying a larger space than that of the former nail. Its surface is irregular, partly fungoid, partly excavated; on it are observed small portions of nail firmly adherent, and which cause great pain if pulled or pressed upon. The ulcer bleeds often, and usually two or three small clots are seen upon its surface: its discharge is not often profuse, but it is glutinous, and the dressings adhere to it. The margin of the sore is elevated, of a dark red colour, but it does not spread, and having once attained to a given size, something larger than that of the former nail, its progress is checked, and it remains for months in nearly the same condition, occasioning the greatest pain, and rendering the hand or foot, as the case may be, nearly useless."

The circumstances that produce this malignant tendency in the matrix of the nail have never been explained, and Mr. Rynd looks on the fungus as an idiopathic morbid alteration of structure, requiring the complete removal of the texture from which it grows. Evulsion of the diseased or imperfectly formed portions of nail is one of the most ancient methods; it does not remove the source of the fungus. Various caustic applications to the latter have been used, but although continued for months they would not affect a cure, as they do not reach that part of the matrix belonging to the root of the nail and protected by the integument. The removal of the matrix by the knife, recently attributed to Dupuytren was practised in the Dublin hospital for years before the French surgeon's practice was made public. The operation consists in making a deep incision down to the bone from three to four lines behind the posterior margin of the sore, carrying the incision round it, and dissecting out the entire sur-

face. The wound is dressed simply and is usually healed in the course of sixteen or eighteen days. The success of the operation depends on the *entire* surface being removed.

II. GROWING OF THE NAIL INTO THE FLESH.

Mr. Rynd is inclined to doubt whether this depends so much on the pressure of tight shoes as is commonly supposed. Be this as it may, when the pressure and irritation of the nail give rise to a fungus from the ulcerated fissure at its side, the matrix is not universally diseased, as in the onychia maligna.

"From an examination of a number of cases of this description, many of which I was enabled to see through the kindness of some professional friends, who were aware of the interest I had taken in them, I have been induced to believe that a very considerable variety exists as to the nature of these affections. In some it consists of a thickened condition of the nail, together with its taking a wrong direction in some part, and growing fairly down into the soft parts. This thickening of the nail is very analogous to the formation of corns, rarely produces much greater inconvenience, is seldom accompanied by fungous growths, and is relieved in a manner similar to that by which corns are relieved by steeping the foot in warm water until the nail is completely softened, scraping down the nail with the edge of a bit of glass, and freeing the toe from the pressure that had stimulated the matrix to too active a secretion of the material of the nail and thus produced the disease. In other forms of this affection the nail is not thickened, on the contrary, its edge sometimes is thinner where it is detached from the subjacent membrane which is pushed against it, becomes fungoid, and thus produces the disease within itself. In this affection the toe positively becomes altered in shape; it is contracted and turned slightly upwards at the side whereon the nail seems to press, and it is this contraction which forces the soft parts against the edge of the nail."

The most common operation for this affection has been dividing the nail longitudinally in its whole extent, and then tearing off the offending portion or portions. This is acknowledged to be horribly painful, and Mr. Rynd avers that it is generally inefficacious, the disease reappearing as the new nail is formed. In short he proposes the measure which is adopted in onychia maligna, the removal of the nail, matrix, and all by the knife. This has been done with uniform success by a particular friend of Mr. Rynd, one of the surgeons of the Meath Hospital.

III. FUNGUS FROM ABSCESS EXISTING WITHIN THE FINGER.

Mr. Rynd is not aware that this affection has hitherto been noticed by any surgical writer. An abscess forms within the finger; the membrane or matrix secreting the nail becomes fungous, and remains so till the abscess either bursts or is opened; and till that occurs there is the most acute agony, which then disappears spontaneously. Of this we are presented with two examples. We shall reverse their order and give the last first.

Case 1. An eminent medical practitioner in Dublin suffered from inflammation of the thumb, produced by some trifling injury. In a short time a crack or fissure, from which flowed a serous discharge, appeared anteriorly between the nail and the flesh, and from this sprouted a fungus which gave much pain. A deep incision was made through the fungous growth, an abscess opened, and the patient was well in eight and forty hours.

Case 2. A medical gentleman, æt. 38, corpulent and rather indolent, who had previously enjoyed good health, with the exception of occasional attacks of synanche-tonsillaris, was much employed in anatomical pursuits during the Winter season of 1827-28. He had been married twelve years, and had nine healthy children, and could not possibly have contracted any syphilitic taint. In June, 1828, he stuck the point of a *new pin* into the extremity of his left thumb, but not under the nail. We

should state that three weeks previously he had received a slight cut on the thumb, whilst examining a patient that had died of diseased hip-joint, but this wound had healed speedily and well. In the course of a day or two after the prick from the pin, the thumb became painful, slightly swollen, and red, and its appearance was that of a slight attack of gout. So it remained for three weeks when a crack appeared under the anterior edge of the nail, followed by a trifling oozing of serum. Immediately a small fungus sprang up, pressed against the nail, and occasioned intense suffering. A portion of the nail was removed, but still the matrix, where exposed, became fungous, till nearly one half of it was in that condition. One gentleman suspected the existence of abscess, an incision was made, but no matter was found; this was repeated in the course of two days with the same want of success. The patient's sufferings were extreme, his health declined, and he became weak and wasted. After lying in this state for two months, pressure on the fungus was tried with sheet lead, and during the night he experienced sudden relief; the abscess had burst and the fungus disappeared in forty-eight hours, but an unhealthy irritable ulcer remained, which took a longer time to heal. But the curious part of the case is to be told, which we cannot do better than in Mr. Rynd's own words. The sequel is in fact extremely curious.

"About three weeks after the first appearance of the fungus, the lymphatics of the fore-arm became inflamed; the inflammation extended along their course to the axilla; sixty leeches were applied and the inflammation was subdued. About a month afterwards an enlarged gland appeared in the axilla, which was also resolved by the application of leeches.

On the 27th of September the abscess burst, and on the 29th he went to the country emaciated and debilitated to an extent not to be explained by the effects of so small a local disease. On the 10th of October his throat felt sore, with some trifling difficulty of swallowing; he returned to Dublin, his throat was examined, and no appearance of disease was discovered except a very slight blush of inflammation, which soon passed away. Towards the latter end of October an eruption of scarlet patches came out on his forehead, fore-arms, and slightly on the shoulders and inside of the thighs. Sarsaparilla and the nitro-muriatic acid were now prescribed, and taken in considerable quantity. In this state he remained until the end of December, his throat being on one day free from uneasiness, and perhaps on the next extremely sore, the eruption sometimes disappearing entirely, sometimes shewing faintly under the cuticle like fading measles, and sometimes of a bright red scarlet colour. He continued taking the sarsaparilla up to this period, with warm baths twice a week, and his general health had been improving since the sore on the thumb had healed. He got weary of taking medicine, and now discontinued it, and trusted to a nutritive diet and the use of port wine.

Early in January, 1829, an anomalous kind of eruption appeared on his scrotum, and produced great annoyance it was so intolerably itchy, but it scaled off and disappeared in the course of a week without the adoption of any medical treatment whatever. On the 15th a tender tumefaction arising from periostitis was discovered on the left tibia, on the 19th it disappeared. On the 2nd of February an eruption similar to what had before appeared on the scrotum re-appeared; it also went away without the use of medicine. During the months of March, April, and May, his throat could never be considered in a state of health, and exhibited so much variety of symptoms, both as to appearance and pain, as rendered the case inexplicable as it was curious; sometimes when there was no trace of inflammation visible the pain would be excessive. An erythematous redness was, on the other hand, often suffused over the soft palate, and occasionally an appearance resembling abrasion of the surface, while there were no indications of exacerbation of pain. Sometimes whilst speaking his voice would suddenly fail, and a paroxysm of cough intercept his articula-

tion; the cough was hard and unattended by expectoration; he would often commence eating, suffering under extreme torture in every attempt to swallow, and after a few moments he would perform deglutition without the slightest pain. In a word, these symptoms came and went alternately without any assistance being sought from medicine. But this uncertain and precarious state of health could not be borne any longer, and he determined to try the effects of mercury, though contrary to the advice of his friends, and took two grains of calomel daily for four days, when he was seized with a cough, accompanied with some hæmoptoe. The mercury was discontinued immediately, and never resumed: his mouth was made slightly sore by this quantity, his gums became spongy, and his breath foul. All the symptoms gradually and slowly declined, and he is now occasionally visited by the following. Wandering pain in the hip-joint of the right side, and weakness which prevents exercise on foot to any considerable extent. Some few pale and almost indistinct stains of eruption on his forehead after exercise. Some broad, flat patches of eruption of a scarlet colour, but not always of the same intensity, on the back of the hands; during the last winter the skin on the palms of his hands was hard and horny, and the natural lines appeared like fissures; this has now disappeared. His throat never has been sore since he took the calomel."

The secondary symptoms in this case, and their order of occurrence are remarkable and deserving of attention. We look on Mr. Rynd's paper as an acquisition in this department of surgery.

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WITH

CRITICAL COMMENTARIES.

XLII.

DUBLIN HOSPITALS.

PRACTICAL OBSERVATIONS ON CERTAIN DISEASES OF THE ANUS AND RECTUM. By A. COLLES, M.D., &c. *

THERE is a contribution from Dr. Colles on the diseases of the rectum, in the last volume of the Dublin Hospital Reports, which is not undeserving of attention. As Dr. Colles observes, this subject is one of high practical interest, and one on which we are not so well informed as could be wished. In fact a *very* good description of the diseases of the rectum and anus is still a desideratum. The topics adverted to by our able author are organic stricture—spasmodic stricture—vascular tumour—and ulcer of the rectum.

* Dublin Hospital Reporter, Vol. V.

I. ORGANIC STRICTURE OF THE RECTUM.

It spares neither age nor sex; it is most frequent about the meridian of life, but Dr. Colles has seen it as early as the seventh or eighth year. He has not witnessed it at or beyond the sixtieth.

"In some few cases the patient appears to be aware of the moment of the first attack of this disease; for he tells us, that without any previous illness the bowels at a certain period suddenly became costive; that for the purpose of relieving them he took large and repeated doses of physic for three, four, or five successive days; that at length his bowels suddenly gave way and a very severe purging took place, which having continued for a day or two, was then

succeeded by those symptoms which attend the disease when fully formed.

Many patients, however, cannot give any account of the first approach of this disease; they merely state that they have been for many weeks, months, or years, subject to it; that the symptoms from the commencement were pretty much the same as those they now labour under, but perhaps not quite so severe and urgent.

When organic stricture is fully formed, (by questioning him,) we learn from the patient, that in the course of each day he has many and sudden calls to stool; that at each of these he is obliged to strain very much, and that the straining, which is not followed by any severe pain, produces a discharge of not more than a table-spoonful of mucus, which is sometimes streaked with blood, and very rarely mixed with a small quantity of fæces; that these evacuations are generally attended with a copious discharge of wind, and that as soon as the evacuation has taken place, he feels free from pain or uneasiness: the remission however is of short duration, as he is soon again compelled to undergo the same unavailing distress. The number of these discharges are seldom less than from seven to twelve during each day and night; they do not take place at regular intervals, but generally a considerable number occur in quick succession, and then are followed by a pretty long interval of ease. The greater number of these evacuations are devoid of fæces; a feculent stool is passed perhaps once in two or three days; the fæces are then found passed in short pieces and of very reduced dimensions, not larger than a full-sized catheter, and in quantity not equal to what is passed in an ordinary evacuation by a person in health, yet after each feculent stool the patient feels much relieved.

There is not the slightest prolapsus ani with any of these evacuations.

The bladder is in some cases slightly affected; the patient then complains of a little difficulty or delay in passing his urine.

In some cases a fistulous opening forms in the nates or the perinæum, which will admit a probe to pass into the rectum; it yields a moderate quantity of healthy pus. The fistula undergoes little or no change from the time of its first appearance, even until the death of the patient. In some cases, especially in females, I have known the number of these fistulous openings to amount to twelve or twenty. The majority of cases of stricture of the rectum, however, are unattended by fistulæ."

Although this state of daily suffering may proceed for years, yet the functions and appearances of the patient shew little deviation from health. After a lapse of time, which varies in different cases, a peculiar pallor of countenance and wasting are observed, and these are quickly followed by night sweats, and uneasiness in the sigmoid flexure of the colon, which soon extends along the left colon. In females a communication is frequently formed between the rectum and the vagina, the greater part of the fæces passing through the latter. In men, but more rarely, a similar communication is established between the rectum and bladder.

As the disease draws towards its close, the distress from the state of the rectum is more serious, and on the slightest exertion, coughing, sneezing, or making water, there is an involuntary discharge of a thin brownish fluid of a muco-purulent character. After some time this discharge comes away in the morning the moment the patient rises from his bed. In the last stage of the disease the discharge is incessant and passed unconsciously, and the fæces can only be voided in a perfectly liquid state. The general health declines proportionally; the appetite fails, there is urgent thirst, emaciation is rapid, hectic fever is fully formed, the night sweats are profuse, and the patient appears to be carried off as much by the exhausted state of his constitution, as by the torments of the local disease. Sometimes in the advanced stage of the disease the patient is suddenly cut off by symptoms of peritoneal inflammation. On examination we find that ulceration had opened the intestine

immediately above the stricture, and that through the opening a portion of fæces had escaped into the cavity of the abdomen. In a few patients warm weather seemed to arrest the hectic fever, but it returned and ran its course with greater severity on the approach of Winter.

"Among a considerable number of patients afflicted with this disease, I have had an opportunity in two instances only, of meeting with it in its incipient state. In both of these the patient complained of different symptoms of irritation of the rectum, frequent stools, discharges mixed with mucus, and certain feelings of uneasiness; on examination by the finger, a thickening and slight projection of the gut was felt at a small spot on one side; this morbid alteration spread gradually round the entire of the canal, and extended along it only to a small distance; but until the morbid derangement of structure had almost entirely performed the circle of the intestine, the patient did not exhibit those symptoms which I consider as the common and inseparable attendants on stricture of the rectum. However constant in their attendance, or unvarying in their course, may be the symptoms of this disease, yet will the surgeon desire to be confirmed in his opinion by manual examination. Proceeding to make this examination, we often observe at the orifice of the anus the following appearance, which is indeed almost always present when the disease is seated near to the external sphincter, namely, at each side of the anus a small projection, which on its external surface appears as a mere elongation and thickening of the skin, but internally presents a moist surface, not exactly like the lining membrane of the gut, nor yet can we say that it is ulcerated; these two projections lie close together below and divaricate above, presenting a resemblance to the mouth of an ewer. Whenever this external appearance exists, I feel almost certain of finding a stricture of the rectum before the finger is pushed as far as the second joint into the gut. In some cases, however, this external mark has not been present."

When the stricture is situated pretty high up, the gut, between it and the anus, is perfectly healthy, but the narrowness of the stricture will barely admit the point of the finger. If it be pushed on with a slight degree of force and a boring motion, it is passed through the thickened and indurated part, and the gut above is felt to be healthy. The extent of the stricture is very variable; sometimes it is little more than a mere ring, at others it stretches along the canal as high as the finger can reach. Dr. Colles has not met with any instance in which, the intestine was strictured only by bands thrown across, and he presumes that such must be very rare. In a few instances the stricture was so high as to be barely touched with the point of the finger; on desiring the patient to "force down" a satisfactory examination could be made.

The morbid anatomy of this disease presents all the coats of the intestine, except the peritoneal, very much thickened; the mucous coat moreover is hardened and raised into irregular ridges or folds, but without any ulceration.

The symptoms are so unvarying and the examination by the touch so satisfactory, that the disease can scarcely be confounded with any other. But still there are affections with which it has some characters in common, and from which it would be well to distinguish it with clearness.

1. *Cancer of the Rectum.* This has the same narrowing of the canal and hardness of its walls, the frequent straining stools and discharge of bloody purulent mucus. But the patient's aspect is leaden and sallow, and he suffers severely from lancinating pains darting through the hips and pelvis into the groins, and down the thighs and legs. If we repeat the examination by the finger after an interval of a few weeks we find that the cancerous ulceration has destroyed some portion of the hardened wall of the intestine, and produced a condition of the parts very different from that of stricture of the same duration.

2. There is a rare form of scirrhus of

the uterus and vagina, in which the latter passage is almost obliterated by a cancerous thickening of its walls. Examination by the finger dispels all doubts of the nature of this affection.

3. Enlarged prostate gland may simulate the symptoms of stricture. Examination is a sufficient test.

4. Stricture of the rectum in its early stage may be mistaken for ulcer of the intestine. If an ulcer be low down it will be seen by expanding the anus, or by introducing a blunt polished gorget into the bowel, with its concavity towards the diseased side of the rectum. The finger too, if steadily pressed against an ulcer, will be received into its cavity, although in a hasty examination it feels like a ridge. In ulcer of the rectum there is a severe pain attends the evacuation of the bowels, in stricture there is none.

5. A tumour in the pelvis may compress the rectum. But here the projection comes from one side only, and the coats of the intestine at this part retain their healthy structure and their natural softness.

Lastly, we sometimes find that the finger in ano will not discover any canal in the gut, the entire of its calibre above the sphincter being filled up with soft folds of the lining membrane. Such is not a morbid state, and is unattended by any symptoms.

The treatment by bougies is that usually recommended, and apparently on rational grounds. But Dr. Colles has never known them produce a permanent cure, although by making a deep groove run spirally in their whole length, he has rendered them the vehicles for conveying various applications to the seat of the disease. Dr. Colles has tried mercury fully without any lasting benefit; he has also given arsenic, cicuta, iron, with the same result. Large quantities of mucilage appear to afford most relief, and blue pill with twice as much Dover's powder has occasionally given temporary alleviation.

This is the only disease to which Dr. Colles would apply the title of stricture of the rectum. In the course of his practice he has not been able to discover a single case of the spasmodic stricture described by authors, and recommended to be treated by the bougie. He not only doubts the existence of the disease, but can recollect many cases, in which this suspected condition of the rectum has yielded to the ordinary means for improving the state of the stomach and bowels. The assurance to the patient that there is no actual stricture is a measure of paramount importance. Dr. Colles looks on the obstruction and thickening of the colon, either at its junction with the rectum or higher up, as an affection very different in its symptoms and its nature from the stricture of the rectum under consideration. In the advanced stages of the former affection the patient can procure no evacuation without the aid of purgatives, nor is he, as in stricture of the rectum, harassed by frequent ineffectual strainings at stool; guided by his own sufferings he can point to the spot where the disease is seated. On examination after death we find a very considerable thickening of the coats of the intestine in the circular direction, but of short extent longitudinally. The canal at the seat of stricture is nearly obliterated, while the intestine immediately above is dilated into a wide pouch.

Our author thinks that the symptoms described by authors as indicating spasmodic stricture, or organic stricture seated beyond the reach of the finger are fallacious. We are told, that examination with a soft bougie, the very diminished diameter of the fæces, and the admixture of blood or mucus with the stools, point out the existence of these diseases. The soft bougie, however, will receive an impression from the projecting ridge of the sacrum, for it is no easy matter to prevent it from being arrested at this point. The diminished diameter of the fæces may be produced by an irritation in the rectum, even in perfect health. And, lastly, the admixture of mucus or blood with the fæces is frequently met with in other and very different affections of the bowels.

Case. "Mr. ———, æt. ann. 36, who had lived rather fully and freely, applied to me

six or seven years ago under the following circumstances: he said that he had been, for the last two years, affected with stricture of the rectum; that in the preceding year he had an attack of dysentery, and that since that time he found the stricture worse; the diameter of the fæces diminished, calls to stool more frequent, and seldom passing without an admixture of blood and purulent mucus; he was losing flesh rapidly, his appetite and rest were very indifferent, and his mind was miserable. Having examined the rectum by the finger, I expressed to him my hopes that he was not affected with such an intractable malady, by which I very nearly forfeited his confidence; for he told me that he had applied to a very eminent physician in the north of England, and then to another in London, both of whom assured him of the existence of this disease; and lastly, he had been under the care of the late Mr. White of Bath, who furnished him with the bougies he was then using, and immediately introducing one, he shewed me the mark which the stricture impressed on it. My most urgent remonstrance could at this time only obtain from him a promise that he would not use the bougie as frequently, or for as long a period as usual. By small doses of blue-pill, combined with compound powder of ipecacuanha and an enema of olei oliv. cum subacet. litharg. liquor., the irritation of the bowels was mitigated in the course of eight or ten days. Availing myself of this favourable change, I again urged him to lay aside the bougie, and with some difficulty obtained a truce for ten days; within this period it fortunately happened that he passed one consistent motion, in which the fæces were of a large diameter: after this I had but little trouble in prevailing on my patient to lay aside altogether the use of the bougie. By persevering in the internal use of mild bitters and bark, and injecting every night an enema, consisting of ol. oliv. and unguent. supernitrat. hydrargyr. into the rectum, his disease was finally cured, and since that time his bowels, though sometimes deranged by ordinary complaints, have never suffered from a return of the former affection, and he has enjoyed very good health."

Dr. C. believes, and it is very probable, that had the patient persevered in the use of bougies, his life would have paid the penalty. The event shewed there was no stricture in the rectum. Our author has known two cases of fatal peritonitis from attempts to dilate a *supposed* stricture at the top of the rectum or termination of the colon, and he has heard, on the best authority, of two others.

Dr. Colles looks on spasmodic stricture of the sphincter ani as a very rare disease. The only case he ever met with had been treated as a stricture of the rectum. The patient, a young man of rank, informed Dr. Colles that during the last two years he had suffered from it for two or three months at a time, and that he enjoyed immunity from it for four or five months. To convince the patient that his fears of stricture were unfounded, our author passed a wooden globe, three inches and a half in circumference, mounted on a stalk of whalebone, ten inches up the rectum, without meeting with any obstruction.

II. VASCULAR TUMOUR OF THE RECTUM.

These are commonly called "Varicose tumours," "hæmorrhoidal excrescences," but Dr. Colles thinks the terms inappropriate. We need not detail the symptoms they produce, but we may mention an examination which Dr. Colles made of their structure after death. On slitting up the rectum in a patient affected with them, he saw three blood-vessels, each as large as a crow-quill, running for some way down the intestine, and then dividing into a number of branches; these vessels ramified very profusely, and each seemed, by interweaving of its branches, to form one of these tumours. The trunks and branches were covered only by the lining membrane of the intestine. Dr. Colles prefers excision of these tumours, as tetanus, the dreaded consequence of the ligature, cannot be guarded against, whilst hæmorrhage, the only likely

unpleasant result of excision, may be prevented and suppressed. The following is his method of operating.

"The tumours having been made to protrude, by means of a purgative injection, I direct my assistant to pass a hook or common tenaculum through one or two of the largest, while I seize another lengthwise with a polypus-forceps, then drawing the tumour a little towards the axis of the gut, with a large pair of scissars passed behind the forceps, I cut off all that portion which is engaged between its blades: I then proceed in the same manner to remove those tumours which the assistant holds transfixed by the hook. By fastening and drawing out the tumor with the forceps, we much facilitate its removal by the scissars. Proceeding in this way I guard against these tumours being drawn up within the sphincter as soon as the first had been removed. I do not think that any case will require the removal of more than three of these tumours, and not unfrequently the cure will be ensured by cutting off only two of them. When the operation is finished, the protruded parts generally retire within the sphincter: should any part remain out, it must be completely pushed in with the finger.

In order to guard against the danger of hæmorrhage, I take care not to prolong my incision higher on the bowel than what I conceive will, when replaced, lie within the circle of the sphincter; for, if we cut the gut higher up, this part, when returned, may bleed freely from not having any surface closely opposed to it. Besides we know that by cutting higher up we are in danger of cutting the trunk of the vessel, instead of confining our incision to the tumour, which is composed solely by the convolutions of its very minute branches.

In a case in which the hæmorrhage was troublesome, Dr. Colles adopted Petit's method of stopping hæmorrhage from the rectum, making use of sponge instead of lint. He would be afraid of cutting away all the protruding tumours, together with the skin at the verge of the anus, on account of the great subsequent contraction of the outlet. In one case in which this was done for warts, the condition of the patient was really miserable. The disease is much alleviated, if not ultimately cured, by an injection of four or five ounces of a solution of the sulphate of zinc in water, gr. ij. ad. ℥j. It should be thrown up every night at bedtime, and retained during the night. Dr. Colles has imagined that the plan of treatment succeeded best if resorted to after one of the painful fits of the disease to which patients are subject. He has known many persons benefitted by smearing the protruded parts after each evacuation, with liniment of ol. oliv. ℥ij. liq. plumb. subacet. ℥j.

III. Ulcer of the Rectum.

"We sometimes find within the rectum, at a short distance above the anus, an ulcer unconnected with any other disease. In such cases the patient complains that he observes his linen stained with a purulent discharge, which often flows when he is not at stool; on examination this will prove different from healthy pus, frequently containing an admixture of thin bloody fluid; at times the quantity of discharge is much lessened, and then the sufferings of the patient are aggravated, but on the flowing off of a larger quantity he experiences great relief; he suffers sharp pain on going to stool, and this continues for an hour or two. On examination, the finger soon discovers the seat of the disease, which at first feels raised and rather rough, but by pressing the finger firmly on this spot, the point sinks into a small hollow cup of an ulcer, the edges of which are found in some degree hardened. We may obtain a satisfactory view of the ulcer, by passing upon the finger a blunt polished gorget, the cavity of which is to look towards the seat of the disease; then by everting the anus as much as we can, we shall obtain a full view of the ulcer by the light reflected from the gorget.

The unhealthy nature of the discharge, the degree of pain and hardness of the edges of this ulcer, might make us apprehend some carcinomatous affection; but in any doubtful case, by temporizing and watching the course of the disease for a

few weeks, we shall have all doubts removed ; for if it be cancerous, the ulcer will in this period, have changed in form and extended in size; besides on strict examination, whilst the point of the finger lies in the cup of the ulcer, it will be found that the hardness is confined to the edges, whilst the bottom of the ulcer is soft.

The remedy for this disease is to introduce into the rectum a convex-edged scalpel, and make an incision through the entire length of the ulcer, continuing it through the sphincter, and dividing the verge of the anus; as soon as this wound has got into a state of suppuration, we should dress it and the ulcer, with some stimulating ointment introduced on a dossil of lint. The cure goes on without interruption, although it is rather tedious and slow of healing. I need hardly add, that the final cicatrization will be promoted by the occasional application of nitrate of silver."

This concludes the paper of Dr. Colles on a subject which practical men will deem highly interesting. We have given it without any comments of our own, although there are some points on which we quite disagree with our author, and others in which the omissions are considerable. Any thing which emanates from Dr. Colles is deserving of attention, and we leave our experienced readers to form their own opinions and conclusions.

XLIII.

MILITARY HOSPITAL OF GIBRALTAR.

DR. GILKREST ON THE GIBRALTAR FEVER.

WE have just received three numbers of the French weekly journal, *La Clinique*, for October, 1829, containing an article, by Dr. J. Gilkrest, on the late Gibraltar Fever, entitled "*Exposé des Lesions Pathologiques*," &c. These numbers have been sent to us by a physician of our acquaintance who liberally observes, "that however warmly he may be opposed to Dr. G's views, as to the communicability and origin of the disease, it is quite impossible to refuse to the author of such an article the praise due to zealous research and practical information." We have long been in the habit of taking in La Clinique, and should perhaps have noticed the article ere this, had we not concluded that Dr. G. would probably follow up his *exposé*, by giving to the British public, in his native language, a more complete view of his large experience in this disease. In controversial medicine, which, if temperately managed, tends to the advancement of our science, we cannot too strongly deprecate bitter personalities, with which neither the public nor the profession can have any concern whatever, but which unfortunately, of late years, have but too often usurped the place of useful information, or logical deduction.

From the journal above-mentioned, we shall give a short exposition of the principal morbid appearances observed in the Gibraltar epidemic.

I. Simple redness of the gastro-intestinal mucous membrane—often perhaps the effect of congestion or stasis of the blood in the agonies of death. 2. Arborescent injection of the veins at the folds of the intestines. 3. Simple softening of the membrane above-mentioned, so as to be easily lacerable. 4. The bronchia vividly coloured in some parts of the lungs where the blood had accumulated. 5. Mollescence of the cerebral substance in persons of a certain age, with congestion of the vessels at the back part of the brain and its membranes—apparently the result of posture during and after death. 6. Vivid redness of the internal substance of the arteries from imbition. 7. Effusion of serum under the arachnoid—and the same at the basis of the brain, together with red points when the organ was sliced. 8. Serum in the vertebral canal, while the spinal marrow itself was sometimes very firm, sometimes in an opposite condition. 9. The internal membrane of the œsophagus altered so as to assume a rugous appearance, or even to be abraded in some instances. 10. Grey patches on the stomach—with sometimes

thickening, sometimes attenuation of the mucous membrane. 11. The same in the intestinal canal. 12. The gall-bladder smaller than natural, thickened or attenuated—its lining membrane strongly inflamed—very little or no bile in this receptacle—the biliary ducts often obliterated by adhesion of their sides. 13. Generally speaking, the pericardium, heart, lining membrane of the veins, the spleen, the pancreas, the mesenteric glands, kidneys, bladder, and peritoneum were unaltered. N. B. The morbid phenomena usually found in the low fevers of Gibraltar and other countries, such as ulceration of the bowels, &c. were not observed in the late Gibraltar epidemic.

14. Yellowness (not constantly, however,) of the skin, varying from the slightest shade to the most intense orange colour—and, in cases of protracted duration, the yellow colour extended more or less to the subjacent cellular tissue, not, however, affecting the serous fluids in the pericardium or other parts. 15. Ears, fingers, and toes, more or less livid. 16. The heat of the abdominal viscera continued longer than in other fevers; but there was no peculiar fetor from the bodies of the dead, nor did they run into decomposition sooner than is usual in other fevers. 17. In cases where the disease was extremely malignant, and its course rapid, the appearances which took place immediately on the extinction of life were very remarkable. The upper half of the body quickly changed from a light yellow into a livid colour, the arms and hands often looking like those of a negro. This sudden lividity was evidently not produced by decomposition, for there was no corresponding putridity of odour. It seemed to result from transudation rather than putrefaction. In such cases the muscles appeared pale and flabby in a remarkable degree. They were extremely lacerable. The heart was in a similar condition in these malignant and rapidly fatal cases.

18. The liver, in ordinary cases, was the organ most frequently presenting well-marked morbid phenomena. Its colour differed much in the latter period of the epidemic from that which it presented in the early period;—hence the French physician saw perhaps not more than half a dozen cases where the organ exhibited its usual characters. The usual colour of the liver was a greenish yellow or pale olive colour, approaching very nearly to that of powdered colombo-root. This colour was not confined to the surface, but extended throughout the substance of the organ. Towards the close of the epidemic it was of a brownish red colour, compared by Areguela to that of red cinchona—by M. Trousseau to that of boot tops, as formerly worn. No colouring matter was obtained from the hepatic substance by steeping, boiling, or pounding it. From livers in this state, little or no blood trickled out when they were cut into and even pressed. No traces of bile were perceptible. The organ was rarely enlarged in volume. No adhesions, abscesses, or signs of inflammation were visible. The above appearances were so constant and uniform, as to be quite characteristic of the malady in its ordinary course.

19. In cases of extraordinary malignity and rapid mortality, this change of colour in the liver was seldom well marked—but, in a considerable proportion of these cases, it was sufficiently so to show that the organ was *passing into that state* which evinced the phenomena above mentioned. Here the engorgement appeared to be the principal character, though it was not invariably evident. There were no traces of inflammation, adhesion, or abscess. Dr. G. and his brethren came to the conclusion that it was the *function* of the liver which was deranged in this malady rather than the structure of that organ.

20. The mucous membrane of the stomach, as was before observed, could not be considered as at all implicated in this disease, except in protracted cases, and in the same way as it is affected in almost all fevers and other diseases of some continuance. Many instances presented themselves where black vomit was unequivocal before death, and yet where no lesion of the mucous membrane of the stomach was discovered on dis-

section. Dr. G. comes to the conclusion now generally entertained, that the matter of black vomit is a transudation of blood, and not vitiated bile. In the small intestines, the œsophagus, and the duodenum, this fluid was sometimes found. In the large intestines a gellatinous concretion was frequently found lining the internal surface.

21. In a good many cases, there were found a number of splenitized (as the French physicians expressed it) portions of the lungs.

22. One of the most remarkable morbid appearances, but only seldom seen, was an infiltration of venous blood into the cellular tissue connecting the muscular fibres, giving to the muscles a dark or grangerous appearance, together with considerable mollescence or lacerability.

23. A very important pathological phenomenon is noticed by Dr. G. which, he maintains, distinguishes the Gibraltar or yellow fever from the common typhoid fevers, viz. *elliptical patches*, (commonly called the glands of Peyer) which, in the epidemic under consideration, were found on the mucous membrane of the small intestines, on the side *opposite* to that of the mesentric line of insertion, which is just the reverse of what obtains in the common fevers, as observed by Bretonneau and various continental pathologists.

☞ This distinction has been misunderstood and mistranslated, both by M. de Fermon, in the Bulletin des Sciences Medicales, and by the editor of the Clinique. Indeed the notice of Dr. Gilkrest's paper, in the latter journal, is inferior to that in the Bulletin; besides having omitted some notes and passages creditable to Dr. Gilkrest.

Upwards of 200 dissections were carefully made. Many dissection-wounds were received in the course of these labours, but no fatal effects resulted. No person appears to have caught the fever from the effluvia of the bodies, though many people assisted in these dissections, who never had the fever before.

Again we reiterate our exhortation to the parties concerned in this important investigation, to proceed in a calm and dignified manner, avoiding all acrimony of expression, and particularly personal aspersions. Wishing, with all our hearts, that we may be conducive to this amenity of manner, in the controversy, we venture, though unauthorized, to state that it was Dr. Barry himself who pointed our attention to Dr. Gilkrest's able paper, bearing most liberal testimony to its merits and fidelity. May this prove an omen of returning good feeling, and the dismission of personal irritation in the pursuit of science and truth.—*Ed.*

XLIV.

ST. THOMAS'S HOSPITAL.

Surgical.

CASES OF INJURY TO THE SPINE.

CASE 1. *Fracture of Bodies and Spinous Processes of Dorsal Vertebræ, without Depression—Dislocation of the Heads of Six Ribs—Fracture of Scapula—Effusion of Blood into the Thorax from Laceration of the Vetebral Vein.*

George Bilson, æt. 27, a brewer's drayman, very tall and muscular, was brought into the hospital about seven o'clock, p. m. on the 29th of October, a sack of hops of immense weight (said to be 4 cwt.) having fallen upon him from a considerable height about half an hour previously, in consequence of the crane having given way. He had lost all power of motion as well as sensation, and appeared labouring under symptoms of severe injury to the brain, still however retaining consciousness of pain, as, when placed in bed, he frequently desired to be "lifted up." Pupils were dilated and insensible to light. He had been bled before admission, and the pulse was slow, 60, small and weak —breathing laborious, short, and frequent, not stertorous—lower extremity cold. Brandy and water were administered by the dresser, and hot flannels applied to the legs and feet. Faintness, occasional vomiting, and other symptoms of collapse were present until he was seen by Mr. Tyrrell, about ten o'clock. It was evident to Mr. T. that

nothing but a total termination could be anticipated, and that very speedily. He directed as much brandy to be given in water at frequent intervals as the patient could be got to swallow, and the whole body to be kept warm. Death took place at 1-4 past one, rather less than seven hours from the injury, the system not having rallied from the shock it had sustained.

Examination of the body 36 hours after death. In the right pleural sac was found a pint of uncoagulated venous blood, which had escaped through a rent in the vertebral vein, produced by the spiculum of the first rib, which was obliquely fractured. The heads of six ribs, from the third to the ninth inclusive, were torn from their articulations with the bodies of the corresponding vertebræ, and projected considerably forwards, fully an inch, into the posterior mediastinum, in the cellular membrane of which there was also effused a quantity of venous blood from the same source. A fracture had occurred in a transverse direction through the body of the fourth dorsal vertebra, by which the spine was completely divided. A portion of the anterior part of the fifth was also torn off along with the lower piece of the fourth. The four spinous processes in the immediate vicinity, with the arch of the fourth, were detached from their vertebræ. The ligamentum subflavum and inter-vertebral substance of these two bones were both torn asunder, and the articular surfaces of both were also literally smashed, no traces of them being left in their natural situation. The texture of the spinal marrow was here entirely disorganized, but at the time of examination it was not considered that any compression had existed. Hence we may infer that the severe injury of the bony structure produced the disorganization of the chord at the time of the accident. Some effusion of dark blood was found to occupy a considerable surface of the cerebrum and cerebellum, beneath the arachnoid membrane. Much injury was done to the scapula. The acromion was broken about half an inch from its attachment to the clavicle, and the spine of the bone was separated from the venter, excepting its connexion by pericsteum. Fractures, or rather fissures, passed through both supra and infra-spinal fossæ.

CASE 2. *Fracture and Dislocation of Cervical Vertebra — Laceration of Inter-vertebral Substance, and of Vertebral Artery.*

William Thompson, ætat. 30, excessively corpulent, was admitted into King's Ward, April 12th, 1830, three hours after he met with the following accident. The person who brought him stated that he had fallen over the side of a cart he was driving, (being drunk at the time,) and that, in falling, he struck his head against the wheel. A large angular portion of the scalp was torn up on the right side. Although he was intoxicated on admission, it was evident that there was some graver cause for his symptoms than mere inebriety; he had not the slightest power over his extremities, and complained of excessive pain at the back of his neck, when touched; the total inability to keep his head supported by his own efforts was also very remarkable. His face was much flushed — pulse slow and full — breathing carried on by the diaphragm *alone.*

April 13th. During the night he passed his fæces involuntarily — his urine was retained — penis in a state of partial erection — limbs, both upper and lower, insensible and powerless — he was quite unable to raise his head, and complained of great pain in the neck, where there was most acute tenderness on pressure. Ordered hirud. xx. to the nape of the neck, and a colocynth enema to be thrown up immediately.

His breathing was quick during this day, but on the morning of the 14th it became suddenly oppressed, and he died in the afternoon of the same day gasping for breath, as though his power of inspiring air was completely exhausted.

On examination it was found that the fourth cervical vertebra was extensively fractured, all the processes being broken from the body and divided into numerous pieces. The intervertebral substance between it and the fifth was torn through, and one of the articular surfaces driven from its correspondent one, by which there was a partial dislocation forwards of the

body of the fourth. The medulla spinalis was much softened in the situation of the injury, and there was a large quantity of blood extravasated amongst the muscles and into the vertebral canal from the laceration of the right vertebral artery. The wound of the scalp had nearly united by lymph.

The superior origin (viz. from the third cervical) of the phrenic nerve being here left entire, it would appear that the diaphragm acted through it alone, but this muscle, being deprived of the greater supply of nervous influence from the fourth nerve, was at length unable to continue its office.

CASE 3. *Fracture of Thigh just above the Condyles—Wound of the Soft parts communicating with the Knee-joint—Lacerated Wound of opposite Ancle—Death—Tubercles in the Lungs.*

John Southcoat, æt. 46, admitted in the middle of the day on Oct. 4th, 1830. This man had been addicted to drinking and looked very old for his years.

The right leg and foot were everted, and the femur was found to be fractured obliquely a little above the condyles in direction downwards, and slightly inwards. A deep punctured wound, nearly an inch in length, was also observed on the outer and back part of the thigh, about two inches above the outer condyle. There was likewise a lacerated wound of the left foot, a flap of integument being turned up of an irregular shape and about six inches in length, passing from the outer ancle downwards and forwards on the dorsum pedis. This was brought together by sutures and straps, and strapping was applied to the preceding. Both limbs were properly supported on pillows in a position easy to the patient, who was considerably exhausted, and cold lotion was applied in the neighbourhood of the fracture.

On the following day the limb was put in Mr. Amesbury's fracture apparatus for the lower extremity, the leg being flexed on the thigh, which was elevated, and the patient placed on his back. An evpaorating lotion was kept on the knee, which was rather swollen, but neither red nor painful. Pulse 96, soft. Bowels open by medicine.

Oct. 7th. Uneasiness during the night from what he considered distention of the bladder—urine has been dribbling away from the penis—the catheter being introduced afforded some relief, although very little urine was drawn off. Pulse 100, and soft—tongue moist—skin rather dry and warmer than natural—bowels open.

8th. Limb easy—no starting has taken place—wound on the foot has slight superficial sloughs, and its edges are separated—two sutures were cut away, and fresh straps lightly put on, with poultice. Patient had little sleep in the night, and is troubled with a hacking cough—no expectoration—free from pain of side or chest, excepting that produced by coughing—has had, however, attacks of pain here—has taken no nourishment—pulse smaller, 108—tongue rather dry and yellowish—bowels open, and urine is voided freely. Ordered beef-tea.

9th. Pulse 108, not so feeble—tongue yellower—skin rather dry—urine easily voided—bowels opened more than once yesterday—swelling has taken place about the knee, but it is now less, and both limbs are quite easy.

11th. Diarrhœa since yesterday—motions very frequent, but not passed with much pain—sickness, but no vomiting—belly soft, not tender—tongue brown, furred, and dry, particularly in the centre—pulse very small and weak—countenance sunken. Had leeches to the knee yesterday, as this had become more swollen; it has now rather a livid appearance from ecchymosis, and is considerably puffed—wound of left foot sloughy, surrounded for some distance by redness. The dresser ordered tinct. opii, ℥ viij. inf. catech. co. ℥j. 2dis horis, and the patient shortly rallied in a surprising degree. On removing the poultice from the wound in the thigh, above an ounce of clear synovial fluid escaped.

In the evening diarrhœa returned with vomiting and constant retching—the powers of life were much more fallen. He was seen by Mr. Green, who ordered two grains of opium to be given immediately—brandy and arrowroot—and a blister to the scrobiculus cordis.

12th. Vomiting was somewhat allayed

by the opium, but after a few hours it returned with the same painful retching. The remedy was accordingly repeated in the night about one o'clock. Has not been so much disturbed in his bowels during the morning, and there is no tenderness or swelling of the abdomen—but this is quite supple—has taken egg and brandy in some quantity, which has fortunately staid on his stomach. Pulse very low at present—tongue more brown, its entire surface being now involved—feet and hands cool—cough very distressing—no sputa—countenance not so haggard, nor features so contracted—a flapping motion of the lips and cheeks, as if he was blowing something away from them; a symptom we have observed uniformly unfavourable. Blister is placed rather high up, and has not yet risen. R. Tinct. opii, ℥lxxx. Decoct. amyli, ℥ij. ft. enema statim. injiciend. Brandy to be taken in cold arrow-root.

The poor patient gradually sunk from this time, and expired at half-past six on the following morning.

Examination of the body 30 hours after death. The external wound of the thigh was found to communicate with the cavity of the knee-joint, by means of an opening in the capsule in front, about ¼ of an inch in diameter, just above the articular surface of the internal condyle. This laceration was evidently produced by a detached spiculum from the upper fractured extremity, immediately contiguous. The femur was fractured obliquely as to the thickness of the bone, not as to its shaft. The surfaces of the fracture were from two to three inches in vertical length, commencing posteriorly and opposite the integumental wound and terminating immediately above the articular surfaces of the femur, the lower edge of the upper fractured extremity being here acute, and the femur thus presenting the appearance as if a lamina of bone had been mechanically scaled off. A good deal of coagulum was effused around and between the fractured ends, the result of injury.

Chest. Bronchia filled with frothy mucus at their root, and reddened in their internal surface. Upper parts of superior lobes of both lungs contained large and solid tubercles, which appearances easily explain the origin of the cough so much complained of during life. One or two atheromatous patches were observed in the arch of the aorta, the inner surface of which was also of a dark red colour for the greater part of its extent. This was considered merely a stain, as the mucous coat of the vessel was in some parts quite natural in structure.

Abdomen. Liver hardened in texture, rather inclined to a nutmeg brown, but not enlarged. Internal surface of the stomach rather florid at the left extremity, and also somewhat hardened at the pylorus, the usual annular feel of which was lost. Here we probably see the cause of the vomiting and purging, as scarcely any disease existed in the rest of the alimentary canal. Both muscular and mucous coats of bladder thickened; the former more especially, which was of a hard texture—there was some redness of the latter membrane. It was rather singular that the patient at one time had the uneasiness in hypogastric region and dribbling of urine from the penis, mentioned in the report, which were effectually relieved by the introduction of the catheter, although the bladder contained very little urine.

CASE 4. *Simple Fracture of the Leg, becoming Compound-Non-union in consequence of Necrosis.*

John M'Canne, æt. 38 a strong robust sailor, was admitted under Mr. Green, January 5th, 1830, with an oblique fracture of the tibia downwards and inwards near its middle, and fracture of the fibula a little lower down. The injury was caused by the falling of a peice of timber on the front of the leg. Crepitus was exceedingly distinct, and there was considerable brusing of the integuments. The leg was laid upon a pillow, with the heel carefully raised to counteract the pressure of the upper fractured end of bone against the skin. Hirud. xvj. lot. spirituous.

6th. To-day the leg was put up in Mr. Amesbury's apparatus for simple fracture. The apposition seemed perfect, and the limb was of the same length as its fellow.

Some redness and heat were observed in the injured parts, to which the lotion was continued. Some slight feverish symptoms were present, as loss of appetite, pulse full, and rather sharp, dry tongue, but not in any excess.

7th. The leech-bites have ulcerated, and discharge a thin purulent fluid. The spirit wash to be left off, and cerat. simplex applied. He continued much in the same state till the—

13th, when the feverish symptoms had greatly increased—countenance was flushed, tongue more furred, pulse quick and sharp, urine scanty and high-coloured—no stool since the 11th. An ill-conditioned sore had formed in the neighbourhood of the fracture, with sloughy edges surrounded by considerable redness, and affording a copious discharge. Ordered, Scam. c. Hydr. gr. xvj. statim. Mist. pot. citrat. 4th quâ. horâ. Fever diet—bread poultice to be applied to the wound, with cerat. calaminæ to the bottom part.

14th. Bowels have been freely opened—great sickness at the stomach, and pain in the head—thirst—pulse full and sharp, 120. On examination with a probe, a communication is discovered leading to the bone, which is denuded for some extent.

15th. The compound fracture apparatus (which differs from the former in allowing the limb to be placed in the straight or bent position, as may be found necessary) was to-day substituted for the simple, and the leg extended—wound appears more sloughy. R. Mist. camph. ℥iss., Ammon. carb. gr. v., Tinct. opii. ℥lv. 6tis—sago and syrup. Port wine, ℥ij. in the day. Cat. lini.

17th. Leg easy—pain in chest and dyspnœa—had yesterday a slight attack of erysipelas of the face, which has in some degree subsided. Tongue dry—pulse quick, not full, or hard. Empl. lyttæ pectori. Demulcent mixture to be taken occasionally.

18th. Relieved from pain and dyspnœa—otherwise the same.

20th. Going on well—swelling of the face less—sloughing extending in the leg, but not deeply—medicine to be taken every four hours. Lot. chl. calcis, with the poultices.

23d. Has rather troublesome cough—tongue less furred, and moist—pulse 80, small—bowels open—face free from swelling and redness—sloughs of the cellular membrane are coming away from each malleolus. Proportions of ammon. carb. and tinct. opii doubled. To have a mutton-chop and a pint of porter daily—continue the wine.

29th. Much the same, but evidently gets weaker, and no sleep at night. To omit his present medicines. Sulph. quin. gr. iij., Inf. ros. co. ℥j, 6tis horis. Opii, gr. j. o. n.

Feb. 2d. No change worthy of mention. Opium, two grains every night.

March 1st. Has been going on without any amendment since last report; does not improve in strength—has no fever—appetite good. No union of the bone has taken place, and a probe introduced through the wound comes in contact with naked bone. The wound presents a healthy granulating appearance, and has much contracted its dimensions. A sore has broken out on the heel from the pressure of the apparatus, which is ordered to be removed, and the leg laid on a pillow. Sores to be dressed with cer. calaminæ.

May 14th. Patient is now quite well in health—sores discharge much less, and are very small. It is, however, quite evident from examination with the probe that the whole cylinder of the bone is dead, and consequently no union can be expected. Amputation has been proposed, and readily assented to by the patient.

21st. The leg was removed by the common circular operation. The skin and cellular membrane were very remarkably thickened—8 ligatures were applied.

22d. Slept for a couple of hours in the night, and has been easy since the operation. Complains, at present, of pain over the tubercle of the tibia. Pulse a little quickened, rather weak—bowels open this morning.

27th. Has gone on well—is put on house-diet, without beer. Part of the dressings removed, and the union of the stump seems perfect.

June 20th. All the ligatures have been cast off a week. As he was this morning

endeavouring to walk with crutches, he became suddenly giddy and fell. The stump was torn in front, opposite to the spine of tibia, and bled for nearly two hours—the hæmorrhage was ultimately stopped by cold and pressure. It did not return, and the wound healed in a short time.

July 25th. Patient presented well.

Dissection of the Leg. Great thickening of the integuments. Muscles wasted. Effusion of fluid into the cellular tissue of the limb. No union had occurred between the broken ends of the tibia in consequence of a large portion of the inferior fractured extremity having become necrosed. The dead part was between two and three inches in length, being nearly detached from the sound bone below, in a direction parallel with the fracture. A shell of bone, a line in thickness, was thus formed from the entire shaft, interposed between the upper extremity and the sound part of that to which it adhered. There was a small abscess between the fractured extremities of the fibula, which contained several minute portions of dead bone. The restorative efforts of nature were, nevertheless, beautifully displayed in the deposition of callus between the fractured ends of tibia and fibula above, and also from the tibia in front to the lower portion; so slight here, however, that it gave way during the examination.

CASE 5. *Malformation of the Heart—Communication between Pulmonary Artery and Aorta.*

Eliza Flumber, æt. 20, admitted as patient of Mr. Green, July 22d, having œdema of the lower extremities with symptoms of disease, or malformation of the heart. She experienced great difficulty of breathing after any exertion, accompanied with palpitation, often long-continued. When she was quiet, the breathing was rather more frequent than natural, but not at all oppressed. She was disinclined to exercise, but could walk about and was able to engage in little domestic concerns. The face and hands were of a purple hue, particularly at the ends of the fingers, in the lips, nose, and cheeks, indicating a mixture of venous with arterial blood. There was constantly coldness of the extremities. She stated that she had laboured under these symptoms as long as she could remember, but could not precisely say whether they had existed from birth, there being a degree of simplicity or want of intellect about the poor girl. The pulse was very feeble, often scarcely to be felt, irregular and intermittent, about 110. The stethoscope applied to the heart did not throw any light on the nature of the affection. Menstruation had never taken place. Ordered, Pil. aloës c. Myrrhâ, gr. v. o. n. Acid. muriat. ℥ij iv. Syrup. am. ℥j. Decoct. cinch. ℥iss. t. d.

She felt better for some time under this treatment, and the swollen feet and ancles were reduced in size. At intervals she suffered from palpitation and dyspnœa, and the feet then swelled more. In September she took the mist. ferri co. but towards the latter end of the month the blueness and coldness of the hands and feet increased. Her face ultimately had quite a livid appearance. On the 16th October she was attacked with acute pain in her side, and died suddenly in the afternoon.

Post-mortem appearance. The heart was much enlarged generally. The walls of the left ventricle in particular, which were in a state of active hypertrophy. A direct communication, capable of admitting a quill, existed between the pulmonary artery and the arch of the aorta, just beyond the origin of the left subclavian, no canal intervening. The ductus arteriosus in the natural situation was deficient, but the very singular malformation we have here placed on record supplied its place in the fœtal state, and this continuing open during life, readily explained all the symptoms then manifested.

There was no disease in the chest or abdomen. ETA.

MEDICAL.

CASE 1. *Inflammation of the Brain, excited by a Portion of depressed Bones, a length of time after the Accident.*

Thomas Russel, aged 17, a sailor, was admitted into St. Thomas's Hospital Dec. 5th, 1829, for symptoms so much resembling those of ordinary fever, that his case was

believed to be, and treated as such. He had considerable pain in his head, especially on the right side, his face was flushed, pulse quick, and skin hot; he had moreover much pain in his abdomen: there was also a strangeness of manner about him which was unaccountable. These symptoms had come on two days previous to his presenting himself, but no cause could be assigned for their accession by the person who accompanied him; however, from the usual habits of this class of individuals, and the fact of his having received his pay, from the ship to which he belonged, only a few days before, there is a strong presumption that he had been drinking. At this time, indeed, until his death, nothing was said about a *blow* which he had received on his head—judging the case therefore to be one of fever, he was ordered hirud. xij. temporibus. Pulv. rhei c. Hydr. gr. xv. statim sumend. Hydr. c. cretâ, gr. v. ter in die. The head to be shaved and cold lotion applied—and milk diet.

6th. He was somewhat better this morning, but still complained of great pain in his head, which he constantly supported with his hand leaning over the edge of the bed—the pain in the abdomen also continued as before. He was therefore ordered hirud. xx. temp. et hirud. x. regioni cæci. Lotio ammon. acetatis capiti and hydr. c. creta, gr. v. 6tis horis. These means were immediately put in force, but during the day he became worse; two or three severe attacks of convulsions occurred, and towards the afternoon he had some indistinctness of vision. In this state he continued until six o'clock in the evening, when he expired without the slighest struggle; and so suddenly, that before the nurse could bring him some tea he had expressed a wish for, he was dead.

Post-mortem Examination 18 *hours after Death.* A cicatrix was now, for the first time, observed in the integuments of the forehead, immediately above the external angular process of the right side. Under this scar an oval portion of the os frontis, equal in size to the disk of a half-crown piece, was found uneven, and slightly depressed: the fractured portion (excepting one point) had re-united. The calvarium was now removed, and it was found, as frequently happens, that the inner table of the bone was more extensively broken than the outer. Three-fourths of this fracture was also re-united, but the remainder, which corresponded to the *point* above specified, projected towards the brain, and presented a very sharp and irregular edge—to fill up the interval thus left between the broken edges, a small portion of new bone had been deposited internally, but in consequence of its irregular growth and prominence it had become a source of irritation. The dura mater was most closely adherent to it, was a good deal puckered, and also thinned; but the most interesting apperance, which at once explained all the peculiarities of the case, was the state of the brain in the immediate vicinity. The membranes, for a space of an inch in diameter, covering the anterior cerebral lobe of the right side, were highly injected, and somewhat thickened—a sensation was communicated to the fingers, as if a tumour had been formed in this part of the brain; its size was equal to a large walnut, well defined, and remarkably firm. A horizontal section having been made, these appearances were found to depend upon coagulable lymph effused in the medullary substance of the hemisphere; the extent of effusion being well defined by a line of increased redness. The colour of the deposit was a deep yellow—its section smooth, and very much firmer than the rest of the cerebral structure—its extent was not greater than was communicated to the fingers before cutting—the cineritious structure in front of the deposit had become very tough and dense—neither on the surface or in any part of the deposit had pus as yet been secreted; but it is highly probable that these appearances were the commencement of an ordinary abscess, which would most likely have become matured but for the sudden termination of life.

The abdominal and thoracic viscera were all healthy.

CASE 2. *Disease of the Internal Ear*—

Abscesses connected with the Temporal Bone —Abscess of the Brain bursting into the Lateral Ventricle.

Edgar Barton, ætat. 24, of spare habit, was admitted into St. Thomas's Hospital, December 11th, 1829, on account of discharge of pus from his left ear, with pain of the same side of the head, and deafness. He did not seem at the time to be suffering much, but his face was rather anxious, and he was apparently emaciated. On the 13th, when more particularly examined, he had some feverish symptoms—there was slight diffused swelling immediately above the left ear, and pressure in this situation gave him exquisite pain. The history he gave was, that he had *only been ill a fortnight*—that the discharge from his ear had not existed longer than that time, but that he had suffered (within the same period) most severe pain of the head, more especially above the left ear. A puncture was made into the the swelling, through which a small quantity of offensive pus was evacuated; this gave him relief. He was ordered to take mist. citratis potassæ 6tis horis. Pulv. ipecac. comp. gr. x. nocte, and to apply a poultice to the puncture. Towards the evening he became very restless, and during the night he was delirious.

14th. He was now highly delirious, at times so violent that it was necessary to confine him; and when not so, was constantly muttering. He seemed only conscious of extreme pain, for he often pointed to his head, and attempted to pull off the poultice. His skin hot and dry, pulse 100, hard and full—tongue brown and furred. The sense of fluctuation in the part already punctured was now very marked—an incision was therefore made down to the bone, and exit given to about an ounce of extremely fetid pus—a probe passed down proved the bone to be denuded for some extent. He was bled to the amount of 16 ounces, which relieved him. He became more tranquil though still delirious. Towards the evening all his symptoms became aggravated, his pulse rose to 116, hard and full; the skin remarkably hot, and the bowels constipated; he was again bled to the amount of 12 ounces, and a dose of senna mixture given to him. 15th. He was not so restless this morning, but lay perfectly unconscious of what passed around him. No discharge from the wound, but from the ear a large quantity of pus was flowing—bowels freely opened. About 3 o'clock in the afternoon he had a convulsive fit, which continued a quarter of an hour, followed by profuse perspiration; at 7 in the evening he had another fit, after which he sunk rapidly, and died at half-past nine. As we frequently find, after death the true history of his case was *now* made out. His mother stated that he had been the subject of discharge from his ear whilst an infant—that for the last few years it had been constant, and of a most offensive smell. During the same time that this discharge existed, he had suffered most severe pain in his head, at times so great as to make him frantic. These symptoms had all been much worse within the last twelve months, with occasional bleedings from his ear; for the last fortnight she said he had scarcely ever been free from pain, and at intervals was quite furious: they had also observed within the last-named period the external swelling.

Sectio cadaveris. The periosteum was found to be separated, from a considerable surface of the squamous portion of the temporal bone, and in the immediate neighbourhood the temporal muscle was sloughy —in the interior an abscess existed between the dura mater and the same part of this bone extending likewise upon the petrous portion—the cavity was circumscribed and contained about half an ounce of very fetid pus. The left cerebral hemisphere, immediately corresponding with this disease, contained an abscess, as large as a hen's egg—soft—undefined—containing fetid pus, and broken down brain. The structure of the brain was disorganized to a considerable distance around in the immediate vicinity of the internal abscess—the process had proceeded to the greatest extent—the membranes and cortical part having become green, and so soft as scarcely to bear handling. During the examination the posterior

extremity of the right hemisphere was cut off; from the ventricle thus opened a quantity of pus escaped: the usual horizontal section was therefore made, when, both lateral ventricles were found full of matter, the source of which was most satisfactorily traced to the abscess of the brain above described. There was no distinct aperture of communication, but the disorganization had gone on, till the inferior corner of the right ventricle was laid open to the abscess—the foramen commune anterius was distinctly shown to be the passage by which the pus got into the left ventricle—several long fungous granulations filled up the meatus auditorius externus, and protruded externally—the lower part of this canal was therefore cut away, as far as the membrana tympani, when the granulations were found to be growing from that membrane; their attachment was so intimated, that there can be no doubt they had existed a great length of time. Some pus was found in the cavity of the tympanum, but no communication could be detected between the abscess and this cavity—the viscera of the other cavities healthy.

CASE 3. *Apoplexy from the Rupture of an Aneurism of the middle Cerebral Artery.*

Elizabeth Hancock, æt. 65, a woman of en-bon-point, was brought to St. Thomas's Hospital, August 8, 1830. When admitted she was unable to speak, had hemiplegia of the right side, and was very lethargic—the account given respecting her was, that ten days previously, whilst hanging out clothes, she fell down suddenly in a fit of apoplexy, without any premonitory symptoms of the attack. During the ten days before admission she had been gradually improving, but there was still symptoms of pressure on the brain. She was quite sensible to what was addressed to her, though unable to reply—the hemiplegia was complete, and she had considerable loss of sensation—she was cupped on the back of her neck and head to 16 ounces—a blister applied to the neck, and ordered to take pulv. scam. c. hydr. gr. xv. statim, et hydr. submur. gr. v., 6tis hor. On the 19th she was somewhat improved; but complained of pain in her head, referred to the left side. She explained this by putting up her hand—eighteen leeches were applied to this part—and cold lotion constantly.

10th. She complained of increase of pain—15 leeches were therefore ordered, and her bowels having become greatly purged, she was to take infus. catechu ℥ii. urgente diarrhœa.

11th. Sixteen more leeches were applied—the head shaved, and a blister to the vertex—during this time she had been improving gradually—and had so far recovered as to utter a few words. On the 13th she was so much better that she was allowed to sit up in a chair, and to have on her clothes. After being in bed a couple of hours, the sister's attention was drawn to her in consequence of her stertorous breathing, and fixed, open eyes—in fact she was in a fit: it did not, however continue longer than ten minutes—twenty leeches were applied, and aperient medicines given to her, but at six o'clock in the morning of the 14th another apopletic attack supervened, during which she died.

Post mortem examination, seven hours after death. The surface was much blanched. The calvarium and dura mater being removed, some fluid deeply tinged with blood escaped. A large surface of the left hemisphere was covered with blood effused beneath the arachnoid, and following the course of the middle cerebral artery—a small quantity was also effused external to the membrane—the whole of this hemisphere felt boggy, as if full of fluid—the brain was removed, and the ventricle laid open from the base. This cavity was then found filled with blood, partly fluid, partly coagulated, the whole cerebral surface in contact with which had a soft and ragged texture—the quantity of blood was about half a pound. The branches of the circle of Willis were then removed, in doing which a firm coagulum, the size of a hazle nut, which had been imbedded in the cerebral substance was drawn away—tracing these branches carefully a small aneurism was discovered connected with the middle

cerebral artery of the left side, and precisely at the point of its division into branches. To this the coagulum just mentioned was firmly attached—somewhat nearer to the trunk of the artery, but still *in* the aneurism, a rent of about a line and a half in length had taken place, through which doubtless the last and fatal hæmorrhage had occurred —there was not a speck of bone or other diseased appearance in any branch of the arterial circle—no other part was examined. DELTA.

XLV.

ST. GEORGE'S HOSPITAL.

SCALP WOUNDS AND THEIR CONSEQUENCES.

IN our last report we detailed many cases of scalp-wound, and offered examples of the ordinary erysipelas of the scalp, and of the diffuse inflammation rapidly ending in sloughing, which frequently occurs in the cellular membrane beneath the tendon of the occipito-frontalis muscle.

There are certainly broad distinctions between these two affections, and those who have seen and watched both, will find little difficulty in recognizing either. But in this as in other things, it is difficult to draw the boundary line with absolute precision. In the diffuse inflammation of the cellular membrane beneath the occipito-frontalis there is often a degree of redness of the scalp, and even more is observed in its outskirts; whilst in the ordinary and genuine erysipelatous affection, there is more or less of swelling and œdema, from serous effusion above and below the tendon. For the diagnostic characters of each we refer to our last report; practical familiarity with cases will alone supply the nicer shades of difference that present themselves almost instinctively to the experienced surgeon.

The present report will be a short one. We shall mention the particulars of two cases exhibiting more curious and less explicable consequences of scalp wounds than those we have hitherto considered, and conclude by an example of the modes in which Nature repairs one portion of the cranium which has been denuded and deprived of its vitality.

CASE 1. *Lacerated Wound of the Scalp penetrating the Tendon of the Occipito-frontalis—Sloughing of the Cellular Membrane beneath that Tendon—Gangrene of the Right Lower Extremity.*

Isaac Sutton, æt. 53, admitted April 17, 1830, under the care of Mr. Babington.*

He was brought to the hospital at 5, p. m. with an ugly-looking, lacerated scalp-wound, situated over the right parietal bone, and not above an inch an half in extent any way; the bone was not denuded; there was sufficient bleeding to require several ligatures. The man was intoxicated and could give no account of himself whatever, but it was ascertained that he had been thrown from a cabriolet.

Head shaved—poultice applied.

On the next day he was still apparently intoxicated. There was no coma—the pupils were natural—there was no pain in the wound, but its edges were tumefied and its surface sloughy. He was ordered house physic, and the pulse rising in the evening he was *bled to* 12 ozs. On the 19th the report runs thus:—"pulse still too strong and rapid, much excitation."

V. S. ad ℥xij—*saline with antimony.*

On the 20th the pulse was nearly natural, but in the evening it was again becoming hard and rapid, and the V. S. was repeated to 12 ozs. with calomel and house physic. On the 21st the pulse was soft, but on the following day the pulse was quick and irritable, the tongue was furred, he had delirium, the scalp was tumid and œdematous, and there were some redness and swelling of the eye-lids.

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* We only saw this patient on the day preceding his demise, and the details, which are taken from the book kept by the house-surgeon, are not so precise as could be wished.

Mist. Camph. c. Ammon. carb. gr. v. 6*tis horis.*

23d. The patient looks better, and has no pain in the head, but there is matter under the scalp. An incision down to the pericranium was made from the right ear to the vertex, and the cellular membrane beneath the tendon of the occipito-frontalis was found in a sloughing condition, the sloughs being mixed with a small quantity of pus. In the course of the day the patient complained of pain over the head of the right fibula, and an erythematous blush, about the size of a half-crown piece, with very slight tumefaction and no hardness, was observed there.

24th. Right upper eye-lid and side of face less swollen—pulse quiet—tongue white in the centre, clean and healthy at the edges—some delirium. A second incision, four inches long, was made in the course of the sagittal suture, and the sub-occipito-frontalis cellular membrane discovered in the same state as before. There was still pain in the leg with hardness and swelling of its whole outer side from the knee to the ankle.

The delirium increased in the night, and on the succeeding morning the right leg was in a state of mortification, with dark coloured vesications on its outer side, from the ankle to the middle of the thigh. The blood was coagulating, or at all events in a state of stasis, in the cutaneous veins. The patient sank rapidly and died at one, p. m.

Sectio cadaveris 24 *hor. post mortem.*

The whole of the cellular membrane beneath the occipito-frontalis was in a sloughy state, and infiltrated with dirty-looking pus. The pericranium was very easily separable, but in no place actually separated from the bone. There was no fracture of the latter, nor any extravasation of blood above or below the dura mater. There was more serous fluid than usual between the arachnoid and pia mater, and likewise in the ventricles of the brain. The sinuses of the brain, as well as the jugulars and superficial veins of the neck, were healthy.

The heart was well proportioned, the aorta a little dilated at its end and thickened in its tunics. There was nothing particular in the abdomen. The right lower extremity, below the middle of the thigh, was in a state of mortification. The muscles and the other tissues were in a soft and semi-putrid state. The veins were perfectly free from inflammation.

CASE 2. *Scalp Wound denuding Bone to some extent—Rigors—Erysipelas of the Scalp and Face—Depôt in left Fore-Arm—sudden Death.*

James Talbot, æt. 39, admitted 1830, under the care of Mr. Brodie.

Scalp-wound an inch and a half in length, situated over the right side and upper part of the occipital bone, which is denuded to a small extent—small artery divided—much effusion of blood from the wound. Simple fracture of right clavicle. He fell down an area 10 feet deep upon his head, and was stunned at the time, but no sickness followed. *The wound dressed with adhesive plaster—figure of* 8 *bandage to the clavicle.*

On the 10th Sept. the wound was diminishing, but the bone was still exposed, and he complained of pain in the head and wound. In the night of the 4th the patient felt rather cold, and there being pain in the wound, an incision was made across it on the 13th, and the bone found exposed for a space the size of a shilling, but not dead. In the course of the day he had a rigor, without vomiting. On the 14th the pulse was 100. He was ordered salines. At 9, p. m. he had a rigor which lasted for a few minutes. Next morning he had nausea—pain in the head in the situation of the wound, which was rather flabby with white and smooth granulations—skin hot—pulse 132, weak—tongue white—pupils rather sluggish. *House physic.*

16th. Erysipelas, of palish yellow colour, has appeared upon the scalp, without much tumefaction—it extends over the forehead and down the back of the neck, where the tumefaction is more firm—wound glazed, dry, and pale—complains of frequent attacks of chilliness—aspect anxious—pulse 100, rather weak—tongue whitish—skin warm.

H. sal. c. vin. ant. t. ℥ss. 4tis hor.

On the next day the erysipelas had extended down the back of the neck and over the face with tumefaction and much tenderness, a dingy tint, and shining surface. The pulse was frequent and full, without force. *Ammoniated salines.* On the 18th the erysipelas had still extended, but the pulse was only 96, and there was less irritability. The scalp was still œdematous, but not red. He had no head symptoms—but on the 19th the erysipelas was spreading, and vesications had formed on the face, and produced scabs. There was much tumefaction of the right upper palpebra. The bowels were opened by senna. On the following day the erysipelas was spreading very little—there was and there had been much tumefaction—vesications on the nose filled with sero-purulent fluid. The œdema of the scalp was subsiding fast, leaving the scalp in wrinkles—the wound was pale but otherwise healthy, and granulations were forming on the bone. The pulse, &c., were nearly natural.

Haust. cinchonæ ter die.

On the 21st he was better, but some tympanitis was observed, and on the 23d this was increased, with uneasiness, referred chiefly to the right hypochondrium. The erysipelas was fading. Bowels not opened. *Vin. rub.* Oss.—*Pulv. rhei* gr. xv.—*Magnes. carb.* ℈i. *ex aq. menth. vir. statim. et rep.*

He vomited the draughts, the tympanitis was rather agumented in the evening, and a slight erythematous redness, with some tumefaction and much tenderness on pressure, were observed on the left fore-arm. *Cathartic enema—spirit lotion—draught of Magnes sulph.*

23d. He is worse. Pulse 110, weaker—tongue becoming dry and red at the tip—bowels not freely opened. Desquamations on the face—some matter in the upper palpebræ. Nearly the whole of the outside of the fore-arm is now swollen, exquisitely painful on pressure, and suffused with a faint erythema. A puncture was made in the fore-arm and some matter discharged; the eye-lids were punctured with the same result. On the 24th the redness had extended over the elbow with a more defined margin. The belly was very tympanitic—the wound on the head was looking healthy—the general symptoms were improved. The bowels had never been freely opened, but this was readily effected by a large warm water injection. However the tympanitis was not a whit relieved, and on the 25th the patient was extremely low, the pulse being barely 60, and very irregular. Both the fore-arm and lower part of the arm were more swollen, but the redness on the latter was subsiding. Matter could be squeezed out from the puncture in the fore-arm. The tympanitis continued to distress the patient. On the 26th a cupping-glass was applied over the puncture, but no matter was extracted by that means. Another puncture was made in a suspicious part above the elbow, but only serum escaped. The erythematous redness was still present.

At midnight he died suddenly, having previously shewn no change for the worse. Unfortunately, owing to some blunder, an examination of the body was not obtained.

It may naturally be asked if the gangrene of the lower limb in the first case, and the affection of the fore-arm in the last, were more than accidental coincidences with the wounds of the scalp? Or it may be inquired if those remarkable occurrences were dependent, or not, upon the erysipelas? It is difficult to decide on points involved in so much obscurity; but, so far as our humble apprehension goes, we should be inclined to imagine, that the affections in question were more immediately connected with the erysipelas, than with the scalp wounds. Reasoning on such subjects is fallacious; the only useful guides are facts. Now it is not difficult to prove that purulent deposites in remote parts not unfrequently follow erysipelas, independent of any injury of the head, and mortification of the lower extremities occasionally occurs under similar, or nearly similar circumstances.

Case. Mr. Brodie amputated the breast of an old and unhealthy woman. Erysipelas followed on the wound. Suddenly the

left lower extremity mortified, and the woman rapidly died.

Case. A man was lately in the hospital under Mr. Keate, with sloughing of the cellular membrane of the right thigh, in consequence of a severe contused wound. Suddenly the opposite limb, which had never been injured in any manner, mortified, and the man died.

These cases prove that mortification of the lower extremities may occur independent of injury of the head, whilst erysipelas or sloughing are going on in a distant part of the body. We need scarcely adduce cases to prove, that purulent deposites in remote parts are a frequent concomitant or consequence of erysipelas. All who have watched the practice of a large hospital must have witnessed many instances of this description. We may briefly mention two or three examples of the fact, which occur to our mind at the present moment. In August, 1828, a patient of Mr. Brodie's, affected with varicose veins and ulcers of the right leg, was attacked with a low kind of erysipelas of the limb. The erysipelas faded on the leg and thigh, but spread up the side of the body, typhoid symptoms and sinking rapidly came on, and he died on the fourth day. On dissection the right knee-joint was found filled with pus and its cartilages ulcerated, and there was sero-purulent fluid in the chest. A man was very lately in the hospital under the care of Mr. Keate, with erysipelas of the left leg, following a contused wound, and accompanied with some sloughing of the cellular membrane. The erysipelas was passing or had passed away, when a collection of matter formed in the opposite knee-joint and anterior part of the thigh. Small collections of matter appeared also on the fore-arms, and the patient died with the usual symptoms of the purulent deposites in the lungs. Owing to the decision of a Coroner's jury, no examination was obtained. A man pricked his thumb with a thorn. Inflammation and abscess followed and ulcerated openings led down to bare-bone. Seven weeks after the injury he was admitted into the hospital under Mr. Babington. In a week more, erysipelas followed and spread up the right arm and down the right side of the body. Tympanitis came on with typhoid symptoms, and the patient died on the 18th day. On dissection there was a small collection of matter near the left sterno-clavicular articulation; and in the left ankle-joint, where there had been a puffy painful swelling during life, with erythema, there was found a mixture of pus and synovia, with inflammation of the neighbouring periosteum and cellular membrane. We might instance many more cases of this kind, but enough has been said to place the fact, of collections of matter occurring in distant parts as a consequence or concomitant of erysipelas, beyond all question or dispute.

From these considerations we are induced to believe that the gangrene of the lower extremity, in the case of Sutton, and the collection of pus in the fore-arm, in the case of Talbot, were rather dependent on the erysipelatous affections than on the scalp-wounds or injuries of the head, *per se*. At the same time we advance the suggestion with diffidence, for our knowledge on these subjects is at present very imperfect. Something too may be said on the other side of the question. It has been observed since the days of Dessault, that injury of the head is frequently followed by purulent deposites in the liver. Mr. Brodie, to whose practical knowledge and instructions we are proud to say that we owe all, has remarked that after injuries of the head slight wounds will run into suppuration, and matter is apt to form about simple fractures. There was an instance of this the other day at the hospital. A patient of Mr. Babington's had compound fracture of the skull. He was trephined and all did well about the head. But he had also a simple fracture of the thigh. Here a large collection of matter took place, hectic was established, amputation was performed as a last and desperate chance, and the patient died from the shock of the operation. On dissection there was some recent inflammation of the

lungs, unquestionably that "peripneumony of the dying" described by Laennec.

These considerations must give us pause before we pronounce a dogmatical opinion on subjects involved in so much obscurity. But still we think the probabilities are in favour of the affections of the extremities in the cases of Sutton and Talbot, having rather depended on the erysipelas than on the injury of the head. The erysipelas itself was the consequence of the scalp-wounds, and therefore the cases are properly and naturally to be considered along with the other injuries of the head.

We shall now relate a case exemplifying the method by which the outer table, or a part of the outer table, of the cranium is removed, when deprived of vitality by local injuries.

CASE 3. *Extensive lacerated Scalp-Wound —Bone denuded—Cure.*

William Maples, a servant, æt. 42, admitted June 4, 1830, under Mr. Hawkins.

Very severe and extensive lacerated scalp-wound, occupying the top and the right side of the head—part of the scalp torn away—the remainder hanging in flaps, with much dirt and gravel, and considerable effusion of blood around. Bone denuded for a space as large as a shilling. A good deal of bleeding. The accident happened by his falling from behind a carriage in Grosvenor Place. He was not stunned, but felt rather sick. He had drunk freely.

Wound well cleaned—lint soaked in blood applied with adhesive straps—cold lotion.

Bleeding subsequently took place to some little extent, and two days afterwards, when suppuration had commenced, a quantity of thin bloody fluid ran out from the wound. There was little fever. A good deal of ecchymosis about the eye took place, and on the 19th coagula of blood were discharged from the nose. A slight chill had occured on the preceding day. The treatment consisted of salines with mag. sulph. and vin. ant. The wound was carefully dressed every day. No unfavourable symptoms whatever occurred, and about the middle of July he was made an out-patient.

The edges of the wound had granulated well, and the wound itself was contracted to about the diameter of a crown-piece. A superficial layer of the outer table of the bone had died. In parts it was absorbed, and through numerous little apertures thus formed, granulations had sprung up. The edges too of the dead scale of bone were loosened and separated from the bone in the neighbourhood, by a kind of trench, formed by ulcerative absorption. Thus the process adopted by nature to get rid of the effete and useless layer of bone, was in part exfoliation, in part ulceration or absorption.

In another case a nearly similar process was observed. A large surface of bone was exposed by sloughing of the cellular membrane under the occipito-frontalis. Its dimensions were gradually diminished by granulations hemming it in on all sides. Then red spots like little ecchymoses checkered the yellow white surface of bone. These increased in size, and after a time a granulation peeped through a minute opening. At last the whole surface granulated in this manner, and no perceptible exfoliation took place. Particle after particle of the dead bone appeared to have been removed gradatim by absorption, and granulations filled its place.

XLVI.

DUBLIN COLLEGE OF SURGEONS—APPRENTICESHIP.

OUR readers are aware that we have all along raised our voice against the system of apprenticeship generally. In the 24th Number of this Journal, page 446, *et seq.* we protested in strong language against a bye-law of the Irish College of Surgeons, which conferred marked *favours* on the apprentice-class of candidates for collegiate honours—

because that class evidently put money into the purse of the College—while the said by-law threw various obstacles in the way of those who approached the dread tribunal, without first burning golden incense at the shrines of the MINOS, ÆACHUS, and RHADAMANTHUS of the Hiberian Tartarus. By some late proceedings in the councils of those regions, we perceive that Mr. Carmichael having made strenuous exertions to repeal the obnoxious and disgraceful by-law above alluded to, was foiled in the meritorious attempt, as might well be expected when VIRTUS was to contend with NUMMUS—and subsequently obliged, from a sense of honour and propriety, to voluntarily withdraw himself from the Court of Assistants of the College. The reader will form a tolerable estimate of the causes of this resignation from Mr. Carmichael's letter to the president, as published in a late Number of the LANCET.

"Rutland Square, Nov. 1st, 1830.

"Sir,—I deeply regret that the by-laws respecting the qualifications of candidates for letter testimonial, have been confirmed by the College at its last meeting, although, during a protracted discussion of several days, sufficient facts and reasonings were adduced to convince any unprejudiced mind of their partiality, injustice, and direct violation of the spirit of our charter. I therefore, Sir, feel myself under the necessity of resigning my seat as a member of the Court of Assistants; for, to hold office after the failure of every possible exertion to repeal those obnoxious by-laws, would be justly considered a tacit approval of their continuance, and of the councils by which the College has been for some time directed, and which, to say the least, I cannot consider but as short-sighted, imprudent, and directly opposed to the honour and dignity of the College, which every member on admission pledges himself publicly and solemnly to uphold to the best of his abilities.

Our new charter has opened two distinct roads by which a license to practise surgery in Ireland can be obtained; the one by apprenticeship and conformity to a certain system of education, which, in the words of the charter, is to be 'hereafter laid down by the College;' the other merely consists in a conformity to the system of education, but without an apprenticeship. Now the College has, in my apprehension, unfairly taken advantage of this unfortunate word '*hereafter*,' and instead of laying down one system of education for both classes of pupils, has enacted a distinct system for each, and this is done in such a manner as must convince any disinterested person who peruses the by-laws relating to this subject, that the object of the College is to discourage all pupils from entering into the profession by any other route than that of an apprenticeship. It therefore follows that the non-indented candidate will enter on the ordeal of an examination, with an impression that he is about to stake his reputation and future prospects in life before a prejudiced tribunal, against whose prepossessions he can have no other dependence save the publicity of his examination, which wise precaution, however needful, will not remove from his mind a conviction, that he goes to trial before judges impressed with a belief that they will serve themselves by his rejection.

It was for the purpose of removing altogether these objections, that I moved for a committee to reconsider the by-laws in question, for I shall venture to assert that there is not a member of the College who has more at heart its true interests than myself, and it is with regret that I feel myself compelled to resign all connexion by office with a body to which I must naturally be attached, were it only by habit, being a licentiate or member for upwards of thirty years, during twenty-six of which I successively held office either as a member of the Court of Examiners, or Court of Appeal, or as vice-president, or president of the College.

I have the honour to be, Sir,
Your most obedient,
and very humble servant,
RICHARD CARMICHAEL."

It is needless to make any comment on the subject. The Irish medical aristocracy is running the same race as the aristocracy in general on both sides of the Channel! The fruits will be seen in good time.

XLVII.

St. John Long.

Another murder, softened down by courtesy into the mild designation of manslaughter, has *come out* —for the two on record, do not form a tenth of those which are, as yet covered by the earth! We are so sick of the scene, that we shall not harrow up our own or our readers' feelings upon this occasion, by many reflections on the credulity and the *cruelty* of man, who is, on more than one side of the channel, a mixture of the monkey and the tiger! Again we shall be edified with the sight of Marchionesses and their pretty daughters ogling from the bench that interesting *creature* the *gentleman-prisoner* at the bar, while the seat of justice shall over-flow with heaven-born mercy, and tears of pity shall roll from the eyes of Minos and Radamanthus to wash away the *errors* of *judgment* to which all humanity is liable, and into which the gentleman at the bar *might* perhaps have innocently fallen, though even that is not probable. Again we shall be obliged to listen to the stuff collected from the ambitious little misses of Bermondsey, Camberwell, and Lambeth, who longed to disrobe and show their swelling bosoms, in company with Marchionesses. Again we shall see some precious specimens of aristocratic intellect, delivered from the right and left of the throne of justice, while rude science and vulgar knowledge must descend to the witness-box, to deliver truths unpleasant to noble ears, and uncongenial with legal subtleties! Again we shall be condemned to hear the doctrine laid down, that the evidence of a Marquis, a Marchioness, or a Lord touching the skill and attention of a medical practitioner, must be conclusive on those points, and outweigh the proofs of facts adduced by ten thousand physicians, surgeons, or other plebian witnesses. Again we shall be reminded that medical men who, during a long life, may have gone on in the accumulation of knowledge and reputation, are precisely on a par with the tinker or the blacksmith, when suspicion of misconduct occurs, or when the merits of practice come to be judicially investigated! This is a doctrine which evidently presumes that a Sir Astley Cooper is just as likely to destroy the life of a fellow-creature by *ignorance*, as a St. John Long, who could not tell the sciatic nerve from the sartorius muscle, for the best of all reasons, that he never saw either the one or the other. We acknowledge, indeed, that medical men must be held liable to criminal actions, as well as quacks— because they may be ignorant notwithstanding their license to practise— and they may be, and no doubt sometimes are, so negligent as to occasion death. So far they undoubtedly stand upon equal terms with the quack, as far as *liability* to criminal action is concerned. But in all other respects, they ought to be viewed by the bench and by the jury in a very different light. When an educated and licensed man is arraigned for mala praxis, the *presumption* ought to be that mala praxis is improbable, till its existence has been proved beyond a doubt: whereas the *presumption of mala praxis* ought to lie, in reason, against the quack, till evidence has shown it did not obtain. In short, *mala praxis* should never be *presumed* in the case of the qualified, nor *bona praxis* in that of the charlatan. If such happen in the latter case, it is more by accident than skill.

But we shall drop the subject. It would appear to us, and it seems to be also the opinion of those who are "learned in the laws," that Providence permits certain ways and means for thinning the population of countries, not very consistent with the ideas which we usually attach to infinite wisdom and justice. Plagues and pestilences have been let loose upon all nations, from time to time, as their population became redundant. When Columbus opened out a wide field for increasing the means of subsistence, and consequently for extending the population, syphilis arose, de novo, to check the principle of fecundity—when the East was overrun by our countrymen in search of pagodas, Cholera came forth to thin their ranks—when the Huns can now no longer swarm over the Alps, to bask in the sunny

glades of Italy, the cholera, or some NOVA PESTIS is come out to pay them a visit, and diminish their numbers. So, perhaps, when the *ennui* of certain branches of our aristocracy tired out the patience of our regular physicians and surgeons, and exhausted the shops of æther and hartshorn, Providence has sent them a ST. JOHN LONG to brand their backs with marks of ignorance more conspicuous even than his own, and thus to give a stimulus to the lagging current of their listless existence, and excite some feeble *sensations* in beings who are utterly incapable of *perception* or *reflection!* Such may be the will of Providence—and no doubt we shall hear this line of argument amply illustrated from the bench in favour of the "gentleman at the bar." The verdict of the jury will be of little avail. The aristocracy and their idiotic imitators are not to be deprived of the only stimulation which their decaying carcases are susceptible of, because it drives sound constitutions into fever, inflammation, and death.

P.S. Since the above lines were written, the public is informed that certain circumstances prevent the "gentleman at the bar" from paying his devoirs to the Marchioness of Ormond, Justice Park, and other of his great friends, during the present foggy weather. He is positively to favour the public with a second appearance at the Old Bailey in the course of the Spring!

XLVIII.

THE LATE DR. ARMSTRONG.

IT gives us much pleasure to be able to place the following circumstances on record, as proving that, among the members of the medical profession, there is sometimes—perhaps often, manifested a delicacy, a generosity towards each other, for which they are not credited in general. It is only necessary to state that the names of the two physicians alluded to in the following paper, have been communicated to us confidentially, and we can vouch for the high respectability and veracity of the parties.

TO THE EDITOR OF THE MEDICO-CHIRURGICAL REVIEW.

Sir—I read some time since the very judicious and discriminating memoir, given in the Medico-Chirurgical Journal, of the late Dr. Armstrong. The perusal of that article brought to my recollection a circumstance relative to that gentleman's appointment to the Fever Institution, which may not be uninteresting to you and your readers.

At the time when Dr. Armstrong was a candidate for the office of physician to that establishment, his rejection at the Royal College of Physicians took place; and much anxiety was necessarily entertained by him and his friends, as to the effect which this uncomfortable circumstance might have upon his application. It may be remarked, that all appointments at the Fever Institution, were, at that time, made by a Committee of 32 Governors, annually appointed, consisting of a President, six Vice-Presidents, a Treasurer, and 24 other members. Two of the latter were physicians of considerable standing; and Dr. Armstrong called upon one of them, who was well known to him, on the business of the election, a short time before it was to take place, but subsequent to the occurrence, alluded to, at the College. This gentleman stated to Dr. Armstrong, that though he had every disposition to serve him, he felt considerable difficulty as to the mode in which his vote ought in honour to be given, from the unexpected decision of the Examining Board of the College; but that he would give the subject his best attention.

In considering the matter, it appeared to him, on the one hand, that as the College were invested with the power of determining on the qualifications of physicians, and as their examinations were always conducted with courtesy and fairness, their judgment should, in ordinary circumstances, be regarded as decisive of the existence of such qualifications. But, on the other, Dr. Armstrong was not a young man who had

just finished his education, but was a physician of many years standing, had been long in considerable eminence and respectable practice in a large provincial town, Sunderland; and was creditably known to the profession by his publications, one of which was on fever, and was therefore calculated to make known, in the best possible way, whatever pretensions he might have, to execute, with ability, the important duties of physician to the Fever Hospital. His deficiencies, too, might be in classical literature; in the nicer parts of anatomy; or in acquaintance with some of those circumstances of professional knowledge which are not frequently called into use, and in which, therefore, a practitioner might, in time, become in some degree rusted. An examiner, however, might feel himself under the necessity of noticing such deficiencies, without reference to the circumstances under which they might occur; while, if he were unfettered by the strict obligation of his official duties, he might look more than he was otherwise authorized to do, to the knowledge required in practice, or to that which was evinced by publications. The inconveniences attaching to a rejection by the College, likewise, were not of formidable extent; the circumstance would be but partially known, and would be the wonder only of a day; while its principal effects would soon be over; for it scarcely ever happens that a second application is not successful. In the case, however, of a failure in the object in question, an opportunity of important advancement might be irrevocably lost, and thus an injury inflicted, of a most serious and lasting character.

On these accounts, but principally from a conscientious belief, that Dr. Armstrong's publications were creditable and useful; and were such as indicated them to be the works of a gentleman of respectable professional attainments, the member of the committee alluded to determined to give his vote for Dr. Armstrong; and on conferring with his brother physician and committee-man on the subject, he had the gratification to find him of the same opinion. The election was therefore unanimously in favour of Dr. Armstrong.

I am desirous of mentioning these circumstances, because it has been stated, that Dr. Armstrong had severe and constant opposition from his professional brethren in the metropolis, who have often been represented as envious of his reputation and merit. He owed, however his appointment to the Fever Hospital, in an eminent degree, to the manly and independent feelings of his medical brethren of the committee; for it is difficult to conceive, that any board, executing before the world a public trust, would, against the opinion of the only two professional men of their body, and in the face of the College rejection, have appointed any one to the most important and responsible situation of a medical establishment. It can hardly therefore be conceived, that one gentleman could receive a more signal mark of kindness from others, than Dr. Armstrong did on the occasion in question. And the value of the obligation may sufficiently be appreciated by those who consider, on the one hand, how much the loss of a position which was looked to for professional success, would have interfered with advancement in the metropolis; and on the other, how difficult it must have been, for gentlemen of delicate professional feelings to appear to set themselves (though in the modified way which has been stated) against the opinion of a body for which they felt much respect, and to which they owed a species of professional allegiance.

I have the honour to be,
Sir,
Your most obedient servant,
Nov. 26th, 1830. X. Y. Z.

XLIX.

MR. HUNT ON THE TREATMENT OF PTOSIS BY OPERATION.*

THE common operation for ptosis is founded on the principle of a lengthened and relaxed lid, but can prove of little service when it

* North of England Journ. No. II.

depends on paralysis or injury of the levator palpebræ muscle, the integuments appearing rather shrunk than relaxed. The ptosis depending on relaxed palpebral integument may be easily distinguished by taking a fold of it between the finger and thumb, and desiring the patient to open his eye, which, with this assistance, he can readily do. Now in raising the eye-lid the levator palpebræ is not the only muscle called into action. The anterior portion of the occipito-frontalis also assists materially in the operation. The levator is inserted into the tarsus, and would in some measure tend to draw it inwards, whilst the occipito-frontalis is connected with the superciliary integuments, and would tend to draw the lid outwards. Thus the two muscles antagonise each other in a manner, whilst at the same time they co-operate. On this hint our author's operation is founded.

"The operation is performed by dissecting off a fold of integument from the eyelid, and the difference from the usual way of proceeding, consists in the portion removed. The upper incision is made immediately below the line of hairs forming the eyebrow, and extends each way, to a point, opposite the commissures of the eyelids. In making the lower incision no precise direction can be given. It should approach within a short distance of the tarsal margin, varying in the extent of the portion included between the two incisions, according to the greater or less degree of relaxation of the skin, which is different in any two individuals, and it should meet the upper incision at both extremities. When the intervening portion has been detached, the divided edges should be accurately united by, at least, three sutures, and the wound dressed in the usual manner.

The effect produced, when adhesion is perfected, is the attachment of the eyelid to that portion of the skin of the eyebrow, upon which the Occipito-frontalis acts, and by means of this attachment, substituting the action of this muscle in raising the eyelid, for that of the Levator, which is no longer capable of doing so."

The deformity from such an operation is proved by experience not to be great, when cicatrization is established. The operation applies only to those cases of ptosis, occasioned by loss of power in the levator, whether attributable to actual destruction of part of the muscle, or paralysis of the nerves applying it.

L.

ABDOMINAL PRESSURE IN OBSTETRICS.

MR. M'MORRIS, a medical officer in the East India Company's service, writes to us as follows. "In one of the numbers of the Medico-chirurgical Review for 1828, I find a bandage proposed by Mr. Gaitskell for obstetric purposes. I have no doubt it will facilitate the parturient powers of Nature by the support and pressure which it affords. It is a common auxiliary among the native women on this side of the Indian peninsula, when the progress of labour is slow. Some of the female attendants, in such cases, place their hands on the abdomen of the parturient patient, and press it pretty violently downwards towards the pubes, having first rubbed it with castor oil. This operation is continued till the child is expelled, which generally happens soon after the mechanical pressure is commenced. If the secundines are not expelled with the fœtus, the woman is left to rest, with a bandage applied pretty tightly round the abdomen. I have been astonished, in some cases that I have witnessed, to observe the increase of the expulsive pains soon after this process is put in force."—*Delhi*, 1830.

N.B. The above procedure corresponds with that recommended a few years ago by Dr. Power, and which was, at the time, too slightingly entertained by our obstetric brethren.—*Ed.*

LI.

ENGRAVINGS OF THE BONES, ARTERIES, AND NERVES, COPIED FROM THE WORKS OF SCARPA, SOEMMERING, &c. By EDWARD MITCHELL, Engraver. With an Explanatory Letter-press by Dr. KNOX.

IN a former number of our Periscope, (July 1829,) we alluded briefly to a series of plates in progress of publication, intended to illustrate the anatomy of the human body. These prints, we are happy to learn, have met with the encouragement they deserve, and Mr. Mitchell and Dr. Knox the ingenious engraver and editor, may congratulate themselves on having accomplished that object which was so ardently desired, both by practitioners and students.

We have already stated, that these illustrations are taken, for the most part, from the splendid engravings of Haller, Camper, Scarpa, &c. and will, when completed, form a kind of miniature edition of Caldani, with this advantage however, that all the anatomical discoveries made since his time will be embodied. The price of the work is extremely moderate, too moderate indeed, in our opinion, to afford any remuneration to the conductors of it.

Before alluding specifically to any of the plates, we would remark that Dr. Knox, with great good sense, has avoided the common error of book-makers, and has not attempted to alter or amend any of the splendid designs of Anderloni or Camper, nor has he clogged the descriptive part of the work with mawkish quotations and incorrect original physiological and pathological observations. A simple and perspicuous account of the parts is all that the surgeon or student wants in a publication of this kind, and we can conscientiously recommend the engravings of Mr. Mitchell as safe and sure guides to the knife of the anatomist and surgeon, which is more than we can do of some other works on the same subject, which must have cost their compilers a pretty penny in the way of newspaper-puffs and advertisements.

The work has very properly been divided into three parts each of which may be had separately.

It is principally from the great work of Sue, and from bones in the collection of the late Dr. Barclay, that the osteological engravings have been made; the delineations are extremely accurate, and convey just notions of the situation of even the most minute foramina and processes, but as the skeleton itself is, or should be, in the possession of every medical student we shall not dwell longer on this department.

To Plates V. VI. VII. and X. of the arteries, we would direct the especial attention of the student, as they display in a distinct and simple chain, not merely the arterial, but also the myological anatomy of the head, neck, and throat, in different points of view. These four plates should be in the hands of every student who frequents the dissecting room. They will save him much labour and anxiety in the examination of these most important regions, and will enable him to comprehend, more easily than he otherwise would do, the descriptions given in the different vade mecums and elementary treatises on anatomy.

In our own time, we were wont to dissect with the aid of Haller's great work on the arteries, and Cloquet's no less ponderous volume, but we did so in fear and trembling, for it was a difficult matter to preserve them from the rude grasp of students, more enthusiastic perhaps than ourselves, and who were not aware of their intrinsic value.

The arterial anatomy of the hand and arm occupies another series of plates, which will be found by the young student to be of much value when he is dissecting the body for the first time. The course and ramifications of the brachial artery are distinctly marked, and their connexion with the muscles and tendons accurately displayed.

In the third division of the work is contained all that is known relative to the distribution of the nerves. The plates are most beautifully executed, and are faithfully reduced from the splendid engravings of Anderloni and other eminent artists.

With this book, and one of the many ex-

cellent anatomical manuals in his hands, the student will find himself *almost* indepedent of a demonstrator, at least in so far as mere *descriptive* anatomy is concerned. By studying it with care before going to—when in —and after leaving the dissecting room, he will soon feel sufficient confidence to dissect with the aid of the manual alone, and by having studied the parts in connection with the plates, he cannot fail to acquire a kind of mnemonical memory, which is of itself a matter of no small importance to the practical surgeon.

LII.

A LETTER TO SIR JAMES M'GRIGOR, M.D., F.R.S., &c. ON THE SANITARY MANAGEMENT OF THE GIBRALTAR FEVER. By DAVID BARRY, M.D., &c.

THE author of the above letter conceives that a great saving of human life might be effected, in the event of another visitation of the fever at Gibraltar, by the timely issue of a well-digested code of sanitary regulations, based on the general and local history of the disease, commensurate with the actual state of science, and sanctioned by the constituted medical authorities of the country. He has therefore ventured to sketch out a *code sanitaire* of this kind, accompanied by a series of remarks on the nature, origin, &c. of the fever. These last we must pass over, in order to extract the sanitary code itself, which is short, and appears in most points judicious, whatever theory we may form of the nature or origin of the disease.

CODE SANITAIRE.

"1. Let us never lose sight of the grand, inestimable facts, that the Gibraltar fever, in its former visitations, has rendered one portion of the population the invulnerable protectors of the other portion from its own future attacks, and that each individual, as he passes through its ordeal, is not only rendered safe himself, but becomes capable of being made a source of safety to many others.

2. When the disease shall have been proved to exist within the fortress, during the hot months, let the sick and suspected be immediately removed without the walls, as nearly as possible in the manner practised in 1810, and there kept effectually separated from the healthy, unsuspected, susceptible part of the inhabitants.

3. Let the infected house and goods be kept in strict quarantine, and purified by water, air, fumigations, and every other means that may be thought advisable; great care being taken that these expurgatory measures be executed by non-susceptible persons.

4. Let no time nor labour be thrown away, at this most important crisis, on cleansing drains or privies. Experience has already proved, most fully, both in Cadiz, in the great epidemic of 1800,* and in Gibraltar in 1828, the perfect inutility, nay, the absolute mischievous tendency of this measure, when adopted after the fever has commenced, with the view of arresting its propagation.

5. Should the infection appear to spread within the territory, notwithstanding the removal of the first sick, all theories must be abandoned, and one maxim must, alone, guide all our measures, viz. *that the disease will stop as soon as the susceptible are separated from contaminated places, persons, and things.*

6. Since, however, it would be obviously impracticable to remove all the susceptible from the fortress, at once, when an epidemic breaks out after a long interval of public health, and when besides a large portion of the civil population, the whole garrison may belong to this class, as was the case in 1828, we must send outside the walls all moveable foci and fomities of contagion, and as many as possible of those capable of being affected by such as cannot be removed.

7. The civil hospital, which stands nearly in the centre of the town, should be transferred, with its whole estab-

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* Vide Vilalba (Epidemiologia Espanola), ann. 1800.

lishment, to the neutral ground, to serve as the nucleus of a civil lazaretto, on the very first breaking out of the disease. Regimental hospitals, also, should be sent out, as the corps, to which they belong, happen to be attacked.

8. No family, after having been once contaminated, should be allowed to remain an hour in the fortress, particularly at the commencement of an epidemic. Temporary emigration should be encouraged, amongst the civilians, by every possible means, and the whole susceptible population, civil and military, should be scattered over the neutral ground, the ships in the bay, Windmill hill, and Europa flat, as widely as the circumstances of the fortress, and the limited extent of the territory, will admit.*

9. Whenever a regiment becomes contaminated, it should be immediately encamped outside the fortress, if it can be spared: if it cannot, on Windmill hill, or Europa flat. There are no other situations within the walls, where the atmosphere is not close and sultry during the summer and autumn, and therefore improper for encampments.

10. The sanitary division of the healthy into the susceptible and the non-susceptible, naturally dictates the classification of the sick into the decided epidemic, the suspected, and the unsuspected. There should, therefore, be three distinct hospital establishments, viz. 1. The foul lazaretto, for pronounced cases. 2. The lazaretto of observation, for those cases which may or may not turn out to be epidemic. 3. The free or clean hospital, for accidents and non-susceptible sick. All the attendants of the first and second establishments, medical, clerical, and others, should be kept, if possible, in quarantine.

11. The bed, bedding, and every thing personal to the sick soldier, sent to either of the first two hospitals, should follow the fortunes of their owner. If the sick man should happen to die, his effects will thus remain where they can do no further mischief, viz. in the foul hospital: should he survive, they accompany him to the convalescent depôt, and thence, after having undergone the most careful ablutions, fumigations, &c. to the suspected quarter within the fortress, on his return to duty.

12. Hospital bedding, properly so called, should be used, as in time of public health, in the clean hospital only. This, of course, implies that the bed and bedding of the unsuspected sick need not be removed from the tents, or quarters of the healthy.

13. There should be three descriptions of camps and quarters, corresponding to the hospital establishment: the foul, the suspected, and the clean or free. These should be kept distinct during the epidemic.

14. Convalescents, from the foul and suspected hospitals, should be returned to the fortress, as soon as possible after their recovery, placed in suspected quarters, and appointed to the lightest duties at first, distinct from the uncontaminated, until the return of public health.

15. The guards, and all other duties within the town and in the sheltered situations of the territory, should be reduced to the minimum consistent with the safety of the fortress; and, as soon as the original and convalescent non-susceptible soldiers are sufficiently numerous to perform these duties, the susceptible should no longer be permitted to participate in them.

16. The building called the naval hospital, which, during the most fatal period of the late epidemic, was crowded with military sick, being constructed in the form of a hollow square, at the bottom of a close and deep ravine, should be abandoned as an hospital, on the very first breaking out of any future epidemic. It might, perhaps, be advantageously occupied as a station for non-susceptible convalescents.

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* "It is much to be regretted, at least in a sanitary point of view, that a larger territory was not attached to Gibraltar, when its possession was secured to England by treaty. The high ground, about the Queen of Spain's Chair would be a most desirable situation for an epidemic encampment."

17. The epidemic sick should, as far as practicable, be treated in detached tents, huts, or sheds, so placed and constructed as to admit of the most perfect ventilation.

18. It will not be enough for the protection of the susceptible, nor for the benefit of the sick, that the latter be sent outside the gates, to the north front. They must be so placed as not to be sheltered by the projections of the rock, nor by the outworks, from the currents of cool air which constantly sweep round that face of the mountain, either from the Mediterranean to the bay, or in an opposite direction, whatever point the wind may blow from elsewhere. No spot, therefore, inside the line of the Orillon ditch and Bayside barrier, should be occupied as an epidemic hospital.

19. As the limits of the territory stand defined at present, on the land side, the most fitting situation for the epidemic sick, on the north front, would be the north-eastern angle of the neutral ground; for the suspected sick, a space near the former to the westward; for the unsuspected sick, still further to the westward: the three establishments to be placed in *echellon*.

20. Should it so happen that the troops in garrison cannot furnish a sufficient number of non-susceptible orderlies for the service of their own epidemic sick, civil attendants of that class must be employed from the beginning.

21. In the pitching of tents, and particularly in the erection of boarded sheds, care must be taken that they be not huddled too closely together, and that they be so placed with regard to each other, as to allow a free passage for the currents of air mentioned in 18. Nothing tends more effectually to prevent the propagation of disease than open space and perfect ventilation.

22. As the town was evidently the centre, from which infection emanated during the first six weeks of the late epidemic, it would be advisable, on any similar occasion in future, immediately on the first appearance of the disease, to cut off all communication with the south, by shutting the gates on that side, and to preserve these two parts of the garrison perfectly distinct, at least as long as the people of the south might continue to afford no proofs of being infected. This measure I conceive to be easily practicable, and perfectly compatible with the safety of the fortress.

23. The first and most important steps towards the saving of human life, on the breaking out of this disease, being its early detection, and the firm, unhesitating announcement of its existence to the proper authority. The chief medical officer should, himself, visit and observe every case of febrile indisposition occurring within the territory from the 15th of June to the 15th of November; and should see every dead body, and have it opened in his presence, if necessary, during that period."*

LIII.

NORWICH MEDICAL AND CHIRURGICAL SCHOOL.

WE perceive that a school is formed for the instruction of medical pupils in the great manufacturing city of Norwich, which promises much advantage to the youth of that county who may be preparing for the profession. Anatomy and physiology, we find, are under the superintendence of Dr. Lubbock and Mr. Nichols. The practice of medicine is taught by Dr. England—while the principles, practice, and operations of surgery are ably explained, enforced, and illustrated, by Mr. CROSSE. On Monday, the 4th of October, Mr. Crosse delivered an introductory lecture to a pretty full audience, and was, we believe, well received. We have before us some notes of this introductory lecture; but we need do little more than state, that the matter of the discourse appears to us to be well selected and arranged, though much novelty cannot, of course, be expected on such occasions. Mr. C. has taken an able review of the state of medical education in this and other coun-

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* Med. and Phys. Journal. December, 1830.

tries, candidly pointing out the defects of our own institutions, and the excellencies of those in foreign countries. The lecturer, however, gives all due credit to the exertions which have been made of late years, both by corporate bodies and private teachers, to remedy the defects in our systems of medical education, and he reasonably anticipates a still greater amount of amelioration, from the same sources, in the course of a few more years. The beneficial regulations which have recently emanated from the Apothecaries' Company alone are deserving of the highest praise, and have, indeed, extorted approbation from those who are little disposed to accord it to the said body, unless fairly earned.

That company, however, will never have achieved the great object of public utility—which must be theirs also—till they have modified, we will not say annihilated, the system of apprenticeship. Like the College of Surgeons, they ought to enjoin five or six years to be spent in the study of the profession; but they should not insist on more than two, or, at the utmost, three years of INDENTURE, and, consequently, of mere pharmaceutical manipulation. A couple of years is quite sufficient time for the acquisition of pharmacy, as far as the SHOP is concerned—and the other three or four years should be left open to the circumstances or the desires of medical students and their relatives, as to the mode and place of acquiring medical instruction. We conceive that such a modification might be introduced, without all the formalities and expenses of parliamentary enactments. In short, the *understanding*, alone, that the indenture of five years is only to be binding for two or three years, would be sufficient to ameliorate the condition of a large class of medical aspirants in this country.

P.S. Since the above was written, we find that the Company has actually adopted the modification which we proposed some fifteen months ago. The modification will be seen in the current Number.

LIV.

Dr. Darwall on a peculiar Species of Paralysis.*

Dr. D. has met with a species of paralysis, not evidently depending on cerebral or spinal disease, which, so far as he knows, is not described in medical works. Of the actual cause of the complaint, and the proper treatment, he fears that he can furnish little information.

"The first case which occurred to me was in a washerwoman, who had been accustomed to carry heavy weights upon her arms. The paralysis was confined, at first, to the muscles which raise the os humeri; there was also great emaciation of the deltoid muscle; and she could only move the limb a few inches from the trunk, and this with great difficulty. Nevertheless, she could bend the fore-arm upon the arm, and to use her own expression, she could do any thing under the elbow. The hand had also its full power. There was not the slightest symptom of affection of the head, nor, indeed, excepting this paralysis, did the patient appear to have the slightest ailment. The treatment instituted did no good, and she gradually lost the whole power of the upper extremities; after which time I lost sight of her, and have since heard nothing of the case.

About the same time, another instance presented itself, in a man who was in a cornfactor's warehouse, and was much accustomed to move large bags of oats, beans, &c. Like the former case, his incapacity was at first confined to the muscles which raise the arm, but gradually involved the whole limb, till, at the present time, seven or eight years from the original attack, he has no use whatever in the superior extremities. In this instance, it was suspected that there was some disease in the origin of the nerves supplying the muscles of the arm, and a seton was inserted in the neck,

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* Mid. Med. and Surg. Reporter, No. X. Nov. 1830.

but without any good effect. The muscles continued to waste, and the limb to lose its power. In neither of these cases was any pain experienced.

A short time after I had seen this last case, a man applied to me, for a severe pain in the left deltoid muscle. He also had been accustomed to carry very heavy weights, and latterly experienced great weakness in the limb. As in the former case, the muscle was much wasted, and was very nearly half the size of the other. Considering the pain in this instance to be rheumatic, and confined to one muscle, acupuncturation was recurred to, and three needles were inserted in different parts of the deltoid muscle. The result was most satisfactory; the pain disappeared, and the muscle gradually recovered its bulk. From that time to the present, now seven years, there had been no return of the affection, though he suffers severely from a chronic inflammation of the bronchi."

The next case was that of a girl, eighteen years of age, stout and plethoric. According to her account, she suffered excessive pain for several hours in the left arm and shoulder, which terminated in the total abolition of power in the limb. She was bled and purged, the moxa was applied, and then a seton. This came out or was removed by herself, and another was threatened, but most conveniently the whole of the power of the limb returned with a "strong convulsion of the muscles" just before the expected operation. There can be little question that this was an example of that compound of hysteria and humbug, which a good practitioner will seldom mistake, a bad one almost always. For some time no other cases than the foregoing presented themselves to Dr. Darwall, till last May, when he witnessed two more.

The first patient was a locksmith, and had been suffering from severe pain in the right shoulder for some time. Colchicum was ordered, and in a few days he returned free from pain but utterly unable to raise his arm, the deltoid muscle being exceedingly flabby. Electricity was tried with considerable benefit, and after the third application, he stated that he had fully recovered the use of the limb. He has not been seen since.

The last case is still under treatment, and is exactly the counterpart of the first which is mentioned in the paper, excepting that the left arm only is affected. The loss of power had commenced in the muscles that move the shoulder, and had gradually been extending downwards for four months, but she could still do any thing under the elbow. There was slight pain in the deltoid on pressure, and considerable pain in the shoulder-joint on attempting to raise the arm. The muscles of the arm were all greatly emaciated. She had been accustomed to carry heavy weights. Acupuncturation had no effect, and electricity was tried. At first it prevented the further progress of the complaint, and latterly she has acquired additional strength in the limb, and some increase of bulk in the muscles.

"The circumstance," says Dr. Darwall, "particularly calling for notice in these cases, is the pain preceding the loss of power, and the apparent facility with which, while in this state, the farther progress of affection was prevented. Are we also to regard the fact, of several of these persons having been accustomed to carry heavy weights, as merely accidental; or is there any connexion between the exertion thus required, and the after loss of power, as cause and effect? Again, in what way is the pain, which simulates rheumatism in its character, to be regarded? And in what way does electricity act?

The impression on my mind is, that this is primarily an affection of the nerves supplying the elevating muscles, and that they may have been injured by the straining necessary in raising or carrying heavy weights. I am the rather inclined to this opinion, from having observed a similar wasting of muscles, in a case in which the ligaments of the shoulder-joint had been strained, if not broken, and in which, though actual dislocation did not take place, the os humeri hung at a distance from the scapula; the

space between the acromion process and the os humeri, being increased to nearly an inch. Now here it was impossible that much straining of the nerves should not take place, and we know that, without the full influence of the nerves, the muscles cannot act. Dr. Wilson Philip's experiments also prove that sécretion is under the superintendence of the nerves; and if secretion, then also nutrition must be concluded to be equally under their superintendence. Farther, supposing that a function be not exercised, diminution of power invariably succeeds, and generally wasting of the organ, which is the instrument of the function. Thus, then, we should first have an affection of nerves producing pain, and impeding the use of the muscles; secondly, the muscles being dependent to a certain extent for their nourishment upon the nervous energy, wasting would ensue, and loss of power. And again, the loss of power necessitating a still farther diminution in the exercise of the organs, would increase the emaciation, till not only the function of the muscles would be annihilated, but their structure almost, if not entirely, would be wasted away. I throw out these hints with considerable diffidence, yet, as in all the cases I have seen, the affection attacked persons who were dependent upon their labour for their subsistence, it is an object of no small importance to ascertain the nature of this disease, and to stop it in its first progress. How far electricity will be found serviceable in these cases generally, remains yet to be ascertained. Its action, however, is that of a stimulant, and though it probably is not the same with the energy afforded by the nerves, it has evidently the power of exciting that energy, and where the structures remain unimpaired, it might be expected to be useful."

The cases are deserving of attention.

LV.

EXTIRPATION OF AN INVERTED UTERUS.*

DR. SYMONDS, of Oxford, has published a case of this description in the last number of our North of England contemporary; the result of the operation was fatal.

Case. Mrs. Tidmarsh, æt. 18, was delivered at the full time, about two years and a half ago of a living child; the labour was lingering, and the placenta long detained, and removed with great violence. In a day or two fever of a low type came on, and more or less uterine hæmorrhage continued for the space of nine months, when she was removed to Oxford. She was very pale and weak; the vaginal discharge was exsanguious, mostly liquid, but occasionally mixed with coagula, and she had now and then bearing down pains. On examination there was found in the vagina a tumour about two inches and a half in length, and an inch and a quarter in its transverse diameter, broadest at its inferior extremity, and slightly tapering towards the point of its attachment—firm and incompressible in texture—smooth and equable on its surface—devoid of sensibility when pressed or irritated. The os uteri embraced its upper part and was without its usual tuberculated feel. The origin of the tumour was evidently above the mouth of the womb; the finger was stopped in its progress at the pubic and lateral parts, but proceeded higher up posteriorly. Dr. Symonds' father affirmed that the cul-desac was entire towards the sacrum, as well as in the other directions.

It was doubtful whether this was a case of polypus or of inverted uterus. The patient improving in some degree, in health, went back into the country, and did not return to Oxford till the latter end of last October. The discharge from the vagina had continued more or less during the interval,

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* North of England Medical and Surgical Journal, No. II.

having sometimes been greater, sometimes less; sometimes sanguineous, sometimes whitish. Her general appearance was much the same, excepting that she was not quite so thin. The tumour was decidedly lower down, and so was the os tincæ also. The lips of the latter were thin, and the point of the finger was prevented from penetrating higher than a quarter of an inch, by the unequivocal continuity between the neck of the tumour and the inner surface of the mouth of the womb. It was now decided that the case was one of inversio uteri. At the wish of the patient and her husband, it was determined to remove the tumour by the ligature.

The rectum having been well cleared out by an enema, Mr. Webb, in the presence of Dr. Symonds' father, Mr. Price, and himself, surrounded the neck of the tumour within the os tincæ with a piece of strong whipcord, by means of Dr. Gooch's convenient instrument. The patient experienced little pain, but was rather irritable after the operation, and had a dose of the liq. op. sedativ. All went on tolerably well, the pulse being frequent and irritable, till the third day, when the ligature was tightened. In two or three hours pain came on, and was subdued by opium. The discharge was dreadfully fetid. The ligature was tightened every other day, and on the 15th day it came away and the tumour was extracted. It proved to be an inverted uterus. At the narrow extremity was a basin-shaped cavity, lined with a smooth shining membrane, evidently a part of the peritoneal coat, and at the broader end, which was the inverted fundus, were percieved the orifices of the fallopian tubes. For three or four days there were no marked unfavourable symptoms, yet the pulse was seldom or never below 100; there was faintness on attempting to sit up, and disinclinafion to solid food. On the fifth day matters were worse, the face was sallow and tumid, there was a peculiar restless moving of the eye, the pulse was hurried, vibratory and small, the breathing was anxious, and the belly was swollen. She had taken a moderate quantity of wine for some days, and an anodyne was now given. In the night there came on all the symptoms of acute peritonitis, rigors followed, and in the middle of the 6th day the poor woman died.

Dissection. There was nearly a quart of pus in the cavity of the peritoneum, with adhesions of the omentum to the bladder. There was no evident vascularity, except in the pelvic portion of the peritoneum. There was a free and open passage between the vagina and abdominal cavity; the aperture circular, capable of admitting the finger, and consisting of the ring of the os uteri with about three lines of the cervix. Close upon it were the ovaries, of natural appearance, and remains of the fallopian tubes. The liver was of palish colour—the spleen enlarged—and the heart hypertrophied.

We have on a former occasion, related the case of Dr. Gooch, but as it is very short, and acquires additional value by being compared with the preceding, we cannot do better than insert it in this place.

"The first time," says Dr. Gooch, "that I saw the patient was in consultation with Dr. Clarke and Dr. Henry Davies; she had been delivered some months before at St. Omer, and immediately after the removal of the placenta, which had been extracted with some violence, a tumour had been felt projecting from the uterus into the vagina, since which she had not only had no hæmorrhage, but had not even ordinary menstruation. When we examined the tumour, we found it about the size of a small apple with a smooth surface, a somewhat narrow stalk, which was completely encircled by the orifice of the uterus exactly like a polypus, but its quick sensibility to touch, and the circumstances under which it made its first appearance, inclined us to believe that it was an inverted uterus, and not to recommend its removal, particularly as she was losing no blood, and her health was sustaining no injury from it. She returned to the continent, and I did not see her again for two years, when she again came to London, to place herself under the care of Dr. Granville,

who had recommended her to submit to an attempt to revert it, and I now saw her in consultation with the Doctor. Since my former interview with her, she had become subject to frequent and profuse hæmorrhages, which had bleached her face and broken her health, and it now became an urgent object to afford her relief even at some risk. We agreed, therefore, that the attempt should be made to revert the tumour, but if this failed, which appeared most likely, we proposed to her husband the removal of the tumour by ligature, stating to him that such an operation had been done successfully, but that it was attended with considerable risk. This, both he and the patient were willing to incur; the attempt at reduction failed, but before applying the ligature, her former attendants, Dr. Clarke and Dr. Henry Davies were consulted, and all of us agreeing to recommend the operation, the ligature was applied by Dr. Clarke; it was tightened every other day, and each day occasioned so much pain as to require an opiate to quiet it. At length, on the fourteenth day, both instrument and tumour came away; there were times when I had a strong suspicion that it was a polypus, but a sight of the tumour proved that it was the fundus of the uterus, for it was a hollow cup, the size of a small apple, in the cavity of which could be seen the Fallopian Tubes. Excepting the pain, and some vomiting, the patient had no bad symptoms during the cure, and several months afterwards her husband called on me to say she was quite well."

Dr. Symonds appends some long but not inapposite remarks on the diagnosis of inverted uterus. They do not admit of abridgment, and are too diffuse to be transferred entire to our pages. The concluding observations, however, are worthy of attention. We should mention that the patient was found to have taken large quantities of brandy privately after the operation.

"On the whole, if on a future occasion I should discover in the vagina of a woman, who, as far as could be collected, had suffered violence in the extraction of the placenta, a bulbiform tumour, encircled by the margin of the os uteri, and sensible, I should feel satisfied that it was an inverted uterus; but even though it were insensible, if it remained unaltered for several months, and a cul-de-sac were perceptible between that surface of the tumour which the os uteri encloses, and the lips of the latter, as far as I can see at present, I should likewise feel no hesitation in pronouncing it to be of that nature, though at the same time it would be rashness to say, that no other complications could occur to embarrass the judgment.

With regard to the operation, no one will hesitate to think that the operation, was warrantable. Successful cases have often occurred besides the one so frequently referred to above; and the circumstances of the patient's health were such, that the choice seemed death from exhaustion, or the risk of extirpation. Of course in Mrs. T.'s case, as in many others which demand serious operations, the very condition of health which renders the interference of art so desirable, at the same time renders the attempt less likely to be successful. The only remark which offers itself on the actual operation, is whether it would not be advisable in another instance to fix the ligature at a lower point of the tumour, so that the peritoneal coat might not be included. This was suggested to me by the examination of the tumour, in which I observed that the depth of the cavity lined by that membrane, was not more than a third of an inch.

It is deserving of notice that no pain was felt, till some little time after the application, or successive tightenings of the ligature, and which I can only account for, by supposing that the pain arose not so much from compression of the uterine substance, as from that of the surfaces of the peritoneal covering, and the consequent inducement or aggravation of inflammation in that part. That inflammation spread extensively over the peritoneum, was abundantly testified by the dissection, but its progress, (as is not unusual with peritonitis,) was very insidious.

The only violent attack of pain, and

pain diffused over the whole abdomen, which took place a few hours before death, must, I should conjecture, be attributed to the sudden escape of pus which had been before confined in the pelvic, and hypogastric regions, by the artificial sacs formed of agglutinated folds of intestines and omentum."

LVI.

A CASE OF SUDDEN PROPENSITY TO MURDER AND SUICIDE. By Dr. OTTO of Copenhagen.

FREDERICK JENSEN, workman, 37 years old, had for some time suffered from fits of giddiness, which always obliged him to keep hold of the nearest objects. In the spring of 1828 he lost a beloved daughter, which afflicted him very much. The state of his health was nevertheless *perfect, in mind as well as in body*, when he one day (Sunday the 28th of September, 1828), after dinner, told his wife that he would take a walk with his son, a boy. ten years old. He did so, and went with him to the green which encircles the citadel. When he came there,—he now relates,—"a strange confusion came over him;" it appeared like a matter of absolute necessity to him to drown his son and himself in the waters at the citadel. Quite unconscious of what he was doing, he ran towards the water with the boy in his hand. A man, surprised at his behaviour, stopt him there, and took the boy from him, and tried to persuade him to leave the water; but he became angry, and answered, that he intended to take a walk, and asked, "Whether any body had a right to forbid him to do so?" The man left him, but took the boy along with him. An hour after, he was drawn out from the water, into which he had thrown himself, and taken to prison. As he still shewed symptoms of insanity, he was bled and purged, and, two days after, was brought into the hospital, and commited to the care of my friend Dr. Wendt, who has perfectly cured him, and who kindly afforded me the opportunity to see and speak with the patient.

He now very quietly tells the whole event himself, but is not able to explain the cause of the suddenly rising desire to kill himself and the boy, whom he loved heartily. This cause is only to be sought in congestion of blood to the brain, the same which before had caused his giddiness; and, whether we adopt an organ of Destructiveness in the brain or not, it is to be assumed, that the propensity to kill himself and the son arose from a morbid excitation of a certain part of the brain. The disposition to congestion originated from a fall he suffered on the head in the year 1820.

We ask, whether any body in this case would have admitted responsibility of crime, if the patient really had executed his plan to murder the son?

In concluding, we beg permission to mention some very remarkable pathological phenomena in this man. Since he fell on his head in 1820 (on the right side of it), all the *right* side of his body is become considerably leaner than the *left;* so that the *right* arm is *not half* so thick as the *left;* the *left* ribs are much less prominent than the *right* ones; and—what is still more remarkable—the whole *right* half part of the head is evidently less than the *left* one.—*Phrenological Journal.*

LVII.

ON THE FURY FITS OF THE ELEPHANT.

[Phrenological Journal.]

IT is well known that the half-reasoning elephant is, in general, a docile and inoffensive animal. Yet sometimes, and often without insult or injury, this powerful creature will scatter destruction in every direction; witness the paroxysm of fury into which MADEMOISELLE D'JECK lately flung herself, to the dismay of all her keepers, and the death of a casual intruder. This orgasm, which does not depend on any apparent exciting cause, and is unconnected with the instinct of the sex, occurs when

the animal is regularly supplied with food—when it has received, and is receiving the kindest treatment. In short, it appears to be a momentary fit of insanity. In India, when this rabies is manifested, it is allowed to subside, which it does of itself. We had a late example at Exeter 'Change, where the dextruction of a noble animal was necessary to prevent the most dreadful consequences. More recently that entertaining performer at the Adelphi and other places, is said, in the Phrenological Jonrnal, to have "killed one of her attendants." The same Journal observes that "as it has been said that the person had used her ill in some way, and had only been punished retributively for the offence, and there are no accounts of the animal's 'running a muck,' in a fit of indiscriminating ferocity, we are not at liberty to consider the Morpeth incident as of the same kind with that which produced the tragedy at Exeter 'Change." From circumstances which it is unnecessary to mention, we can inform the writer in the Phrenological Journal, that it was *not* one of the keepers that was killed by the ingenious quadruped commedian, but a person not usually in attendance, who happened to go into Miss D'Jeck's chamber, and make some noise. The lady seemed actuated by a sudden and quite unaccustomed burst of fury. She struck the intruder first with her trunk, and kindling into still greater rage, followed up her revenge, or rather madness, by dashing one of her tusks into his chest, and goring him against the wall of her chamber. The paroxysm of fury was soon over, and she manifested no disposition to injure her keepers.

We are informed by Mr. Corse Scott, who long had the charge of the Company's elephants in India, that these animals are subject to paroxysms of the above description. "He states that he has seen an elephant so excited suddenly gore other elephants with its tusks, and kill them outright by transfixing them to the ground." In a recent number of the Library of Entertaining Knowledge, we find the following passage bearing on this subject.

We have already mentioned an instance of the ferocity of the elephant under a peculiar state of excitement, as observed by M r Corse. This state is indicated in both sexes, *and is probably in some degree relieved* by the secretion of a brownish juice from a considerable gland at the temple, through an opening in the skin.' (I would say excited by the secretion, and relieved by the exudation.) 'The aperture is situated between the ear and the eye, on *each* side of the head, and the gland is immediately under the skin on each side also. The glands are as much as six inches in diameter, but the aperture is scarcely perceptible. This peculiarity is noticed by Strabo; and the Indian mythology has seized upon the circumstance for one of its fanciful devices. The Hindoo poets often allude to the fragrant juice which oozes, at certain seasons, from small ducts in the temples of the male elephant,' (Mr. Corse says of the female, too,) 'and is useful in relieving him from the redundant moisture with which he is then oppressed; and they even describe the bees as allured by the scent, and mistaking it for that of the sweetest flowers."

We are told by the writer in the Phrenological Journal, that "there is always a great and continued exudation (from the aperture above-mentioned) during a fit of fury, and for some time after it; while it appears that the fit is moderated and ultimately allayed by the discharge." As the gland from which this secretion issues is, he believes, situated near, if not immediately over the organ of destructiveness, he queries whether a state of inflammation in the gland may not act in exciting the portion of contiguous brain, and account for the temporary fit of homicidal insanity. We agree with him that the subject is worthy the attention of our Asiatic phrenologists, as one which may tend to throw some light upon the "instinct of destructiveness as a specific primitive impulse, having its organ in the brain."

The paroxysm of the Adelphi performer, though transient, appears to have been allied to those above described. We have made inquiries, but cannot learn that there was any exudation of the kind alluded to

by Mr. Scott. The elephant has gone on a voyage to our transatlantic brethren, to whose amusement she will no doubt contribute. They need be under no alarm respecting the young lady's organ of destructiveness; for we can assure them that, excepting on the above occasion of an untimely intrusion on her privacy, she has not manifested any propensity to combativeness, much less destructiveness, during all her travels ane performances fron the banks of the Dwina to the pillars of Hercules—and even to ULTIMA THULE'.

LVIII.

APOTHECARIES' COMPANY.

THE following queries, with their official answers, as published in the Medical Gazette of the present month, are so important, that we hasten to give them the utmost publicity. It will be seen that the system of apprenticeship has now received a final and fatal overthrow—an overthrow which, we hope, we have somewhat contributed to, by our unceasing opposition to that system. It will now be observed with pleasure, by every well-wisher to the prosperity of medical science, that the whole period of medical study is included in the term of apprenticeship. As for the salvo, or proviso of *permission* from the master of the pupil for attendance on lectures during the apprenticeship, it is a "vox et preterea nihil." No surgeon will dare to refuse this stipulation at the signing of the indenture—for this simple reason, that unless he make such a concession, he will have no pupil. We rejoice exceedingly in this regulation of the Society of Apothecaries. "*Perge pede quo cepisti.*"

"Query 1. Are the two years attendance on lectures and hospital practice meant to occupy two entire *successive* years; or is it meant that two winter sessions, commencing in October and ending in April, comprising four courses of lectures and hospital attendance during those two sessions, be sufficient to constitute the required time?

The Court of Examiners do not require that two *entire successive* years should be devoted to lectures and hospital practice; nor do they require four courses of lectures on any branch of medical science, nor any hospital attendance during the first year.

2. Will an apprentice be admitted to an examination who is permitted by his master to commence his studies in London at the end of the fourth year of his apprenticeship; or, in other words, would the last year, or half year of his apprenticeship, devoted to medical study in London, be considered as a completion of the five years' servitude?

An apprentice will be admitted to an examination who has been *permitted* by his master to attend *all* the required *lectures* and *hospital practice* during his apprenticeship; and the time thus spent will be considered as so much of his apprenticeship.

3. Is it required that an apprentice should be 21 years of age before he commences his course of study in London; or would it suffice if he be 21 years old at the time of his examination?

It is not required that an apprentice should be 21 years of age before he commences his course of study in London, but he must be of that age before he can be examined; and although an apprentice may, with the permission of his master, commence his attendance on lectures at any age, it is not advisable that he should do so until he has completed his 19th year, unless he is an apprentice in London, in which case he may with advantage begin to attend lectures in the very first year of his apprenticeship.

4. Is a youth now in his medical apprenticeship considered as having commenced his study in medicine, and thereby exempt from the operation of the last or new regulations, in like manner as the pupil who commenced his attendance on lectures, &c. in London on the first of October, 1830?

The Court of Examiners have stated in the last regulations, that *all students* whose

attendance on *lectures* shall commence on or after the 1st of Jan. 1831, must observe these regulations.

5. Would four winters, or four half years in regular succession, or at irregular periods, be computed as the two years' attendance in London, as required by the last or new regulations?

Four periods of six months each, either in regular succession or at irregular periods, will be computed as two years, provided the order of succession pointed out by the regulations has been observed by the student in his attendance on lectures and hospital practice.

6. In case of the illness of a student while prosecuting his medical studies in London, whereby a loss of time (say half a year) might occur, will he be required by that half year's loss of study to continue six months longer in London to complete the two years' attendance which the new regulations require; or would the half year's loss of study go unnoticed by the Court of Examiners?

When any case of this nature arises, the student should state all the circumstances attending it to the Court, who will give it such consideration as it may appear to merit.

7. Are the medical schools at Paris recognized by the Court of Examiners on the same grounds as those of Edinburgh, Dublin, &c.

They are.

LIX.

St. John Long's Liniment.

Two correspondents of the Medical Gazette, "who have been endeavouring conjointly to find out the panacea" of the renowned lung doctor of Harley-sreet, state that the following liniment produces precisely the same effect as that of Mr. Long.

℞. Acid. nitr. muriat.	℥ij.
Ol. terebinth	℥j.
— Camphoræ	℥v.

Misce ft. linimentum;—or, which is better:

℞. Acid. nitr. muriat.	℥ij.
Ol. terebinth.	℥j.
Axungiæ	℥v.

Melt the lard, and then add the other ingredients, stirring the whole till quite cold.

"Either of these liniments rubbed upon the skin with a sponge, will, in three or four minutes, cause it to be highly reddened, and the capillary vessels to be injected with blood. If the rubbing be continued, small pustules, here and there, containing a transparent limpid fluid, will make their appearance; and if it be still persisted in, the part becomes excoriated, and an exudation of a thin clear lymph is the result. During its operation, the patients first feel warmth in the part where it is applied, then smarting, and at length actual pain. With regard to the humour Mr. L. pretends to extract, this appears to be nothing but the residue of the liniment left upon the skin; and as to its affecting the part only where the disease is situated, it certainly is true that it does not seem to act upon the whole of the surface of the skin on the chest alike, but this arises from some parts being more tender than others; hence the skin on the superior parts of the chest requires less rubbing with the liniment than that covering the ribs."

Without attaching the least credit to the supposition that this is the liniment employed by Long, we may ask, is the application of such a preparation as that above-described, upon the skin, of any service in phthisis, or not? We have tried it in several cases, and in all, the patients have expressed relief after its employment. They have had less cough, they have breathed more freely, and the expectoration has been diminished in quantity. We have only employed this remedy six weeks, and hardly that; so that what permanent good may result from it we know not. We cannot, however, but acknowledge that we think it might be a useful addition to the means we already possess, to produce *immediate* counter-irritation. We are fully aware that a blister is attended by a like result, but, at the same time its action is slow, and its after-effect is such that it is sometime before it can be repeated, and it cannot be applied over any extent of surface. The antimonial ointment, likewise, is another coun-

ter-irritant; but this also is uncertain in its action, and slow in its operation, and it cannot well be used again until the pustules arising from it have healed. The nitro-muriatic acid liniment, however, produces the effect almost instantaneously, and can be employed on any extent of surface without those inconveniences; for although it gives rise, at the time to a profuse determination of blood to the skin, yet this gradually subsides, and it can be re-applied (if it has not been improperly used) as often as we may consider necessary."

P.S. In the first of the forms published in our contempary, a mechanical separation of the ingredients takes place on standing. The second formula is better adapted for use; but, unless a greater proportion than one half of the muriatic acid be used, the effect on the skin is inconsiderable. We have used the liniment on several occasions. It is a counter-irritant of easy application, and not very painful in its effects. We do not believe that it is at all similar to that which St. John Long employs. It may be found a useful remedy.

LX.

EXPEDITIOUS MODE OF APPLYING MOXA. By *M. Potet.*

THE author of this paper, in Broussais' Journal, proposes, and has put in practice, a substitute for the moxa, which he affirms to be less painful and more expeditious than the Chinese procedure. It is neither more nor less than laying a train of common gunpowder on the part, or rather on a plate under the part, and blowing it up by a match. This process is quick as lightning, and the extent as well as depth of the eschar may be regulated by the quantity of gunpowder employed. Four cases are related in illustration. The first was a case of hemiplegia in an aged female. M. Potet laid a train of gunpowder on a plate under the paralyzed leg, about an inch broad at one end, and gradually diminising to a point at the other. The limb was held about six inches above the train when fired. The patient seemed electrified, and drew the paralytic leg out of the assistant's hands. The power of motion also returned in the arm, and her mouth returned to its natural position. The reporter was not a little surprised at this event. The scorched part was merely dressed with cabbage leaves—suppuration became copious and continued a month, by which time motion was re-established in the paralytic side, and continues so till the present time, three years after the burning. The hemiplegia had been of a month's standing before the above remedy was employed.

The second case was one of paralysis of the right arm, of six months' duration. The gunpowder moxa was applied from the wrist to the elbow. Motion was instantaneously restored. The suppuration was very trifling. Case three was a female who was seized with a complete hemiplegia on the 2d of April, 1830. M. Potet applied the explosive moxa from the wrist to the elbow. Motion was immediately restored, as was also speech, which had been considerably affected. She only kept her bed a few days, but the suppuration continued for nearly a month. So much muscular power continued in the affected side that she was able to pursue her domestic avocation, which was spinning.

The last case was that of a man who was grievously afflicted with sciatica of both the lower extremities, and who had been given up by a quack after all his money had been drained. A superficial moxa was applied twice from the right ankle up to the top of the thigh. He proposed to apply a third one, but was refused. On the third day this man could walk with the aid of a stick; and by the end of a fortnight he was able to take to his work.

Should the fulminating moxa be found as useful as the less alarming Asiatic process, it will certainly be much more manageable. But we fear that there is something so repugnant to the feelings of patients in this remedy, that it will never come into general use, however beneficial in itself. The fatal accidents, too, which have resulted from the counter irritations of St. John Long, will prove an obstacle to the judicious and necessary employment of such measures, for

many years to come. The abuse of a remedy will always curtail its use; and the recent exposure of quackeries will prove a considerable check on legitimate and scientific remedies.

LXI.

ON PROLAPSUS UTERI. By BARON LARREY.

THE venerable Baron has not confined his attention solely to diseases and wounds of soldiers. His talents have been often directed to the alleviation of those maladies which afflict civil life.

Prolapsus uteri, to a greater or less extent, is not uncommon among women who have a shallow pelvis, and who have borne many children. One of the most frequent causes of this complaint is the dangerous traction of the funis, after delivery of the fœtus, by ignorant midwives. The complaint is more common in France than in England on this account. The prolapsus exists in various degrees. When the uterus comes to the external orifice of the vagina—when the subject is of a relaxed fibre, and an advanced age—there is no other resource but to return the organ to its place, and to endeavour to support it there by means of a pessary. But if the subject be young, and the organ does not fall lower than the inferior orifice of the pelvis, great hopes may be entertained of a cure—and of the prevention of scirrhus of the uterus, which, he thinks, is often the result of the prolapsus. This complaint, he conceives, is owing to two causes—one is, an asthenic engorgement of the parietes of the organ—the other, an elongation or relaxation of the ligaments, produced in the manner above alluded to, or by large utero-fœtations. The remedial measures embrace cupping the loins, the groins, and other places as near as possible to the seat of the engorgement. When the local depletion is effected, Baron Larrey applies the Moxa, two at a time, to the parts above-mentioned. He remarks that we need not fear to reiterate the applications from time to time, assisting the measure by the horizontal posture, elevation of the pelvis, and flexion of the lower extremities—to which may be added cold and astringent applications and injections, laxative lavements, and mild nutricious diet. By two, three, or four months of this treatment, he has succeeded in completely curing prolapsus uteri. We shall introduce one or two cases in illustration.

Case 1. Mad. de V——, aged 27 years, consulted the Baron for a prolapsus uteri of the third degree, which has succeeded a second accouchement, where great and unnecessary traction of the placenta had been employed. She could not bear the pessary. The means above-mentioned were put in use, and in 84 days the cure was complete. The horizontal posture was, of course, maintained during that time. Baron Larrey employed similar measures in a great number of other cases, and with the same result.

Case 2. Madame de C.——, aged 27 years, tall, and of exquisite sensibility, after a laborious fourth accouchement, became affected with a prolapsus uteri, where the organ appeared visible at the os externum. She consulted an accoucher, who ordered her to wear a pessary. The introduction of this instrument was difficult and painful—and its remaining there was excessively annoying, preventing the passage of urine and stools, except with great pain. After six weeks' perseverance in this plan, she consulted Baron Larrey, who proposed the removal of the pessary, and the adoption of the means already described. She complied with his proposal, and in six months, the cure was so complete that this young lady could take long and fatiguing journeys on foot, without any inconvenience.

LXII.

TWO LECTURES ON THE STUDY OF ANATOMY AND PHYSIOLOGY. Delivered at the Opening of the Session 1830, in the Medical School, Aldersgate Street. By JONES QUAIN, M. B.

WE do not intend to review nor to criticise these Lectures. Mr. Quain is very favourably known to the profession as the author of a valuable work upon anatomy, and to young men as an anatomical teacher. The present lectures do no discredit to his talents or his reputation. The moral tone which animates them is highly commendable in a teacher, and the interesting manner in which the subjects are handled, is calculated to lead his auditors to embark with zeal in studies which can wear so pleasing a garb. The following passage will exhibit a specimen of the whole.

"The personal I is confessed a permanent being; every individual acts as if he were one and identical; and such he is invariably considered by others, notwithstanding the admitted fact, that the material components of his body are subject to a perpetual mutation; for over this ceaseless cycle of change presides that power, which altogether suspends the ordinary play of affinities in the first moments of fœtal existence, modifies and controls them during the succeeding stages of life, and allows them to come into action, only when it is withdrawn at death. 'I had rather,' says Bacon, 'believe all the fables of the Legend, the Talmud, and the Koran, than that this universal frame is without a mind. When the mind of man looketh to second causes scattered, it may sometimes rest on them, and go no farther; but when it beholdeth the chain of them confederate and linked together, it must needs flee to Providence and to Deity.' How strangely then do these men argue, who contend that all the phenomena of living beings, and all the functions which they perform, are results—the necessary results of their organization; and that their structure is produced by an aggregation of particles, according to the laws of chemical attraction. We have seen, however, that such is not the rule of their formation; so far from it, they are formed by a process the very reverse of this; which is a conclusive evidence that there is some other power at work, besides that of attraction. But, were we, for a moment, to admit that the form and structure of organized bodies are determined by attraction, then we could have no grounds for expecting to find evidence of design or forethought in their conformation. This at once prompts us to enquire, (and surely it is an interesting subject of enquiry) whether they do not exhibit incontestible evidences of both, in whatever point of view we examine their habits and capabilities, or investigate their structure.

It is a favorite opinion with many that all our knowledge is derived from the senses; as well might it be said that all arts and manufactures are derived from the doors and windows of the houses, into which the raw materials are brought to be subjected to the skill and dexterity of the workmen. Again, as our senses exist before we have acquired any experience, we have sufficient grounds for questioning another assertion, which is frequently put forth, namely, that all knowledge comes from experience. There is a sort of knowledge which is prior to experience, and acts quicker than reason, and which exhibits itself for the most part in prompting measures for self-preservation. Thus young animals seek the breast from which their nutriment is derived; and, in after-life, the different tribes of living beings select different sorts of substances for their food; some feed on herbs, and every part of their conformation marks them to be fitted and intended for digesting that kind of food. Others live on animal substances, and as we saw yesterday, when examining the structure of carnivorous animals, the conformation of their teeth, jaws, stomach, limbs, adapt them for the habits that have been impressed on them. Some become torpid during winter, and choose places of security whilst in that state; others, as the swallow, enjoy a perpetual summer, by

migrating from one country to another, and their conformation enables them to fulfil their destination. The bee and the wasp lay up stores for winter, and, strange to say, the comb which the bee builds is always placed vertically, that of the wasp, horizontally. Moreover, the cells are all constructed on strictly geometrical principles; for each of them is a hexagon, terminated by a pyramidal base. In the execution of their work they give a practical solution of a very difficult problem: 'A quantity of wax being given to form out of it, similar and equal cells of a determinate capacity, but at the same time so arranged, collectively, as to occupy the smallest possible space, whilst each individual cell possesses the largest possible area in proportion to the quantity of matter employed.' If they were cylindrical, vacant spaces must exist between each three contiguous cells; if they were square or triangular, they would require more material and be altogether unsuited to the form of the bee's body.

Is it from instruction—is it from their senses—is it from experience, that these creatures execute their work with the precision and method of the most accomplished artists? No one, I believe, would answer in the affirmative; each group of living things has its special aptitudes, its peculiar habits.

Dente lupus, cornu taurus petit; unde nisi intus
Monstratum?"

We wish Mr. Quain every success which assiduity and honest ambition deserve.

LXIII.

OBSERVATIONS ON SOME CASES OF SUPPOSED RHEUMATIC AFFECTION OF THE LOWER EXTREMITIES IN FEMALES. By MADAME BOIVIN.

IT will be some time before we see such minute pathological investigations from the pen of a female writer in this country, as Madame B. occasionally sends forth into the medical world! But we shall let the lady speak for herself.

Case 1. A female, 55 years of age, the mother of seven children, had always enjoyed good health till the age of 52, when she was seized with pains in the iliac regions, and in the lower extremities. The catamenia had been suppressed some time previously. Leeches, frictions, anodynes, warm baths, and various other means were used without any relief. The menses returned; but the pains persisted. They were considered rheumatic. A discharge of blood now took place from the uterus, and continued more or less, for many months, without exciting any suspicions in the mind of the medical attendant, till Madame Boivin and M. Dubois were consulted, when they discovered an enormous cancer of the uterus, together with an ovarian disease causing adhesions about the pelvis, which no doubt gave origin to the pains considered rheumatic. She was sent from the MAISON DE SANTE' into the country to die.

Case 2. This case shews the danger of a too speedy return to occupations after an accouchement.

A female did not menstruate till the age of twenty; but after that period had the catamenia regularly continued till her 29th year, when she became pregnant, and went into the hospice of the Ecole de Medecine for accouchement. Her delivery was rapid, the labour only continuing one hour. On the *third* day the female returned to her master's house, and took to her usual avocations of cooking! But she was soon seized with violent fever, swellings of the mammæ, pains in the abdomen, in the left iliac region, to which leeches and fomentations were applied. She was sent into the hospital Necker, where she was properly treated, and comparatively cured; but still there remained a tumour in the left iliac region, with pains in the hip and thigh, which were considered rheumatic by her subsequent medical attendants. She ultimately came under Madame Boivin's observation in a MAISON DE SANTE', and on accurate examination, the os uteri was found to be thrown out of its proper position; to be hard and enlarged; while a tumour was felt occupying the iliac region, which was

considered as a diseased ovarium. By proper treatment the symptoms were much mitigated; but she was discharged uncured.

Several other cases are related by Madame Boivin, to shew how frequently medical men confound the pains resulting from organic disease in the pelvis, with rheumatic pains of the lower extremities. These we need not detail. The above are sufficient to put practitioners on their guard.—*Journ. Complement.*

LXIV.

ON PNEUMONIA BILIOSA. By R. N. ALLEN, M. D. of the United States.

IN our Maryland cotemporary, of July last, a paper on the above disease is given from the pen of Dr. Allen. The title of bilious pleurisy, or peripneumony, may sound rather strange to English ears; but there is unquestionable foundation for the appellation, even in this country, as we have often, and even very recently, had occasion to know. In hotter climates, and especially in America, bilious pleurisy is very common, and sometimes epidemic.

"SYMPTOMS: — Commonly, but by no means universally, the invasion of pneumonia biliosa, of whatever grade, is marked by a distinct chill. This is sometimes substituted by slight sensations of chilliness, frequently of considerable duration, and occasionally extending even to several days. Premonitory symptoms sometimes precede the attack, similar to those which precede the occurrence of other febrile diseases, but generally accompanied also by catarrhal affections. It happens, indeed, not unfrequently, that the severest forms of bilious pleurisy supervene on catarrh, by gradual and insensible aggravation of the catarrhal symptoms."

"It occasionally happens, even in the most acute cases, that there is no cough whatever, but in the great majority, it is from the beginning a troublesome symptom. Sometimes it is almost incessant, greatly aggravating the pain, and producing extreme distress.

The expectoration is at first scanty, but becomes more copious as the disease advances. In perhaps about half of the well-marked cases, the sputa are streaked with blood, nor does this symptom at all darken the prospect of recovery. It is observed, however, by Professor Potter, that the appearance of grumous blood in the matters expectorated, is an unfavourable symptom. Our own experience has thrown little light on the science of prognosis. The sputa are also frequently, if not generally, tinged with bile, but this circumstance being common, can afford no ground for any conjecture as to the event. We have not observed the spitting of blood attending pneumonia to render the patients peculiarly liable to chronic diseases of the lungs.

Thoracic pain is an universal symptom, but it occupies various parts of the chest. Sometimes it is confined to a single spot, at other times it is diffused through various parts of the thorax. The breast and sides are its most common seats, but it occasionally invades the back, about the region of the lower ribs, and wherever it may be seated, very frequently extends through the breast to the scapulæ. The pain is, perhaps, universally aggravated by a full inspiration, but this circumstance is by no means diagnostic, as is often supposed. We have sometimes observed the pain attendant on the most transient attacks of colic, as well as that accompanying other abdominal affections, to be also aggravated by inspiration.

Pain of the head attends a certain proportion of cases, perhaps not more than one-third or one-half the whole number. It seems to be purely symptomatic of the gastric or pulmonary disorders, seldom continues beyond the early stages, and presents no distinct indications in the treatment. We have never known it to terminate in phrenitis, nor has it ever required any other remedy besides a dark room, an elevated position of the head, and blisters to the neck. Professor Potter observes that the pain of

the head is in inverse proportion to the thoracic pain, but we must confess that we have never seen any thing to warrant such an assertion."

"The state of the respiration we regard as far more important in the prognosis, of pneumonia, than all the other symptoms together. It is impossible, however, for laborious breathing to continue long without seriously affecting the pulse.

The tongue is perhaps uniformly coated with a yellow fur. If the disease should terminate without the supervention of typhoid symptoms, which happens in a great majority of cases, the appearances of this coat will be but little changed during its progress. The cleaning of the tongue at its tip and edges is one of the earliest and most descisive indications of a favourable crisis. When the typhoid condition supervenes, which frequently occurs in protracted cases, it becomes first brown and dry, and afterwards black, or of a smooth shining red, as if covered with an adventitious pellicle. Here again, a change from these appearances towards the natural condition, will afford the most decisive sign of convalescence."

"The dejections are almost uniformly bilious, and for the most part retain this character for several days from the attack. The colour of the skin and eyes, and the serum discharged from blisters, are frequently concurrent signs of the bilious character of the disease."

"Unless typhoid symptoms occur, pneumonia biliosa commonly terminates in from seven to fourteen days. Its duration within those limits is wholly uncertain and indeterminate. If the typhoid condition should supervene, it will generally be protracted for one or two weeks longer."

We lately met with a marked case of this kind in Great Russel Street, which terminated fatally on the 14th or 15th day. The patient was an elderly gentleman, who had served many years in the East Indies, and laboured under hepatic derangement. Having got cold, however, in the beginning of last November, he was seized with unequivocal pleuritis and also pneumonia of the right lung, exhibiting all the usual phenomena. We were rather surprised, however, when the expectoration commenced on the second or third day of the disease, to find it as yellow and as bitter as bile—in short, it consisted in a great measure of bile. About the 5th or 6th day, the skin also began to assume a yellow hue, and all the secretions and excretions partook of the same colour. The expectoration never altered into the bland muco-purulent kind; but continued viscid and bilious till the last. The fever assumed a typhoid type, and the patient sank exhausted at the end of a fortnight. It is exceedingly difficult to account for the yellow colour and bitter taste of the expectoration in cases of this kind.

LXV.

FUNGOID DISEASE OF THE TESTIS.

IN our review of Sir Astley Cooper's work on the Diseases of the Testis, we omitted the details of several cases, with the view of reserving them for this department of the Journal. Three instances of the fungoid disease remain to be noticed here.

Case 1. On Dec. 7th, 1807, Sir Astley removed the testicle of Mr. A——, of Worcester, for this disease. For a fortnight he proceeded tolerably well, but then an abscess formed in the course of the cord, and a fungous appearance presented itself at its extremity, when the ligature had been secured. By the 11th of Janaury, 1808, the wound was quite healed, and the patient went into the country. Here he gained 13lbs. in weight, but he returned to town on the 1st of February, and complained of slight pain in his abdomen. On the 10th, there was observed a swelling of the scrotum, and on pressure there issued a brain-like pulpy substance, of brownish red colour; the swelling subsided, but the pain in the abdomen remained. By the 21st, a fungous tumour had again formed in the scrotum, and between the edges of the wound. It grew rapidly, the ulcer had

everted edges and a fungous surface, and a hard swelling surrounded it. He had pain in his stomach, and was sallow as before the operation. On the 1st of March, a fungus had arisen with rapidity opposite the end of the cord. Sir Astley removed it, but with difficulty, as it adhered to the tunica vaginalis of the other testis, and on that side he had a hernia. Pain in the stomach now became severe, and a tumour could soon be perceived on the right side of the abdomen, above the level of the navel. The pain was only relieved by opium. On the 15th, he was attacked with violent pain of the abdomen and vomiting, and after this he was often sick, had cardialgia, and indigestion; the pulse was 130 in the minute. He was removed to Islington, but the symptoms continued to make progress. A swelling of the leg and thigh of the affected side now took place; he vomited frequently, had hiccough, and was much reduced. Diarrhœa set in, the symptoms of sinking made progress, and on the 20th May he died. Towards the latter part of his existence, this unfortunate patient had frequently rigors succeeded by heat, and the left leg began to swell a short time before his death. In the morning of the day he died he became quite easy, and even when his extremities were cold, he said that he felt as if he could walk down stairs. The mind was energetic to the last.

Dissection. The spermatic cord did not seem to be diseased. Behind the duodenum was a tumour, to which the intestine adhered; to the posterior part of the tumour the aorta and vena cava were attached. The tumour was as large as the head of a child. In parts it was white and fibrous, in others it resembled brain in different degrees of putrefaction: when the more solid portion was compressed, there issued a fluid like cream tinged with blood. Many of the mesenteric glands were enlarged. The aorta and vena cava were greatly diseased, each of them being tuberculated, and the aorta nearly closed by a tuberculous secretion. The thoracic duct was unaffected.

Case 2. Mr. ——, aged 46, of Ramsbury, Wilts, presented himself to Sir Astley in December, 1807, with the right testis treble its natural size, and as hard as marble. It was only painful when pressed, but felt heavy, and the swelling was increased by exercise. He had some pain in the groin, looked sallow, and had a fixed blush in the centre of the cheek. The disease had commenced three or four months previously, with an uneasy sensation in the testicle on touching its upper part. It then began to grow large and hard, and feel heavy. The pain in the groin had only existed a few days.

On the following day Sir Astley amputated the testis, the wound healed quickly, and in January he returned to the country, apparently in good health. On examination of the testicle, the body and epididymis were found in a pulpy state, and filled with soft fibrine, mostly of yellowish white colour, but coloured in parts by blood. The hardness of the testis had arisen from the excessive distention of the tunica albuginea. The tumour was very unequally organized: Quicksilver thrown in by the vas deferens proceeded as far as the beginning of the epididymis, but would pass no farther. In a few months after this person's return into the country he died of vomiting, swelling of the legs and thighs, violent pain in the abdomen, hiccup, sallow countenance, abdominal tumour, and great tenderness on pressure of the abdomen.

Case 3. In March 1823, a fungous testis was removed from Mr. E. a baker of Cambridge, 25 years of age. He had tried various remedies, and amongst them mercury, without benefit. In about three weeks after the operation he was able to resume his business. In the following November he began to complain of pain in his back, extending forwards to the abdomen, on the side from which the testicle had been removed. In a few days it had increased greatly, and was attended with vomiting and fever, which were subdued by two copious bleedings from the arm and aperient medicine. In about a fortnight the symptoms re-appeared, and some fulness in the

affected side of the abdomen was discovered. The tumour continued to increase until May, 1824, when the tincture of iodine, in large doses, was tried for some weeks. He derived no benefit from this remedy, was obliged to have recourse to opium, and died in the following July.

On opening the abdomen, large irregular masses of soft pulpy structure presented themselves in every direction, though evidently springing from that side from which the testicle had been removed, and having attachments posterior to the peritoneum. The texture of the morbid growth was so loose that a handful of it might be scooped up without using any force.

LXVI.

Dr. Buchanan on Lithoplatomy.*

We may inform our readers at starting, that lithoplatomy signifies dilatation of the urethra for the extraction of a stone. Dr. Buchanan has written a very interesting paper on the subject in our valuable contemporary of Glasgow. The remarks, to which we shall proceed forthwith, were occasioned by two cases which occurred to Dr. B., in one of which three stones were extracted from the female urethra; and in the second, a stone measuring two inches and eight lines in its largest circumference, and one inch and ten lines in its smallest, was extracted from the membranous part of the male urethra by cutting down upon the grooved staff. From the consideration of these cases Dr. Buchanan proceeds to inquire into the ancient and modern methods of extracting calculi from the urethra of the male, namely, curved probes, scoops, forceps of various kinds, *suction by the mouth*, the application of a pump, &c. The Egyptians compressed the neck of the bladder, and inflated the urethra through a wooden canula, and introduced elastic tubes which they distended in the bladder; and then pushed the stone forwards from the neck of the bladder. The latest and the best means of extracting calculi of small size are the forceps invented by Sir Astley Cooper and Mr. Weiss. The instrument for dilating the female urethra by the same ingenious instrument-maker, has superseded all other modes of operating for stone in the female bladder. Dr. Buchanan has objections to it.

"The objections which I have from experience to urge against Mr. Weiss' instrument are the following: 1st, The difficulty of introducing the two blades at once into the bladder, from the increase of their thickness towards the screw or handle. 2d, The unequal manner in which the canal is dilated, the exterior part requiring to yield before the interior. 3d, The liability to laceration of the mucous membrane, in consequence of one part being put more on the stretch than another. 4th, The tendency of the instrument to slip out of the passage, while the dilatation is effecting. 5th, The canal being dilated in a very unfavourable direction by only *two lateral* blades, the rami of the ischia present on each side a natural barrier to their expansion."

This speculum vaginæ of Mr. Weiss, a very excellent instrument, has given Dr. Buchanan the hint for a speculum urethræ, or *litho-platome*, which he had has constructed. It is on precisely the same principle as the speculum vaginæ, but is much less in size, and instead of being hollow it has for strength been made solid. By means of it a full view of the female bladder is readily obtained with a properly directed light. Now the question arises as to the possibility of dilating the male urethra in a similar manner. Dr. Buchanan feels convinced that stones of nearly as large a size might spontaneously pass by the male as by the female urethra. Of this we entertain considerable doubts. That calculi of some size can be brought from the bladder to the membranous part of the urethra we well know, but beyond this their extraction becomes more difficult. In short, we do not consider it probable that calculi beyond a certain size will be withdrawn through the urethra by dilatation, or at least that such

* Glasgow Journal, No. XII.

an operation will come into general use. We rather imagine that the chief modern improvement in this part of surgery will proceed from the removal of calculi from the bladder, when *small*, by the urethral forceps, and by our better acquaintance with the conditions of the urine, the states of system that they indicate and by which they are occasioned, and the most philosophical methods of treating those conditions of the urinary secretion. But to proceed. If objections should be urged against extreme dilatation of the urethra, Dr. Buchanan has another string to his bow, twice as long and strong as that.

"The opeartion I allude to, is that by which the male urethra is converted into a female one, and thus the difficulty and danger of both lithotomy and lithotrity is at one step superseded by lithoplatomy.

For the purpose of effecting the first part of this operation, the patient must be secured as for lithotomy; a grooved staff is introduced into the bladder; the membranous part of the urethra near the prostate incised, to the necessary extent, to admit the lithoplatome; and then, having withdrawn the staff, the operation of dilatation of the remaining part of the urethra, prostate, and neck of the bladder, will be, with nearly the same ease, safety and effect, accomplished, by means of my lithoplatome, as in the female.

That there are many objections to the above method of operating for stone I must at once admit, and until I can give it a fair trial on the living subject, I shall not contrast it either with lithotomy or lithotrity; judging, however, from what I have already experienced in the female urethra, and, on the dead subject, in the male, I am not the least afraid of the result. I shall only add further, that if the operation of lithoplatomy does come up to my expectations, and that of many judicious and talented surgeons here, to whom I have mentioned it, how much will suffering humanity be relieved, and the labours of the surgeon facilitated."

Now it is a singular fact that this idea occurred to Mr. Keate some few years ago, and that he made experiments on the dead body in St. George's Hospital, with the view of determining the advantages or otherwise of the proceeding. He was induced, however, to refrain from performing the operation in the living body on two accounts; first, because a moderately sized stone can be extracted from a healthy bladder with very little risk; and secondly, because a large stone could not safely be extracted from an unhealthy bladder, even if it could be extracted at all, by this dilatation of the membranous part of the urethra.

We shall make no further comments on Dr. Buchanan's proposal. That the object of the Doctor is most laudable we are sure, and we cordially award him the meed of perseverance and of research in the prosecution of his experiments and inquiries. We fear, however, that we cannot quite participate in the excusable enthusiasm with which he anticipates the most brilliant results from this operation.

CLINICAL REVIEW.

LXVII.

SIR PATRICK DUN'S HOSPITAL.

CASES OF CANCER UTERI. By W. F. MONTGOMERY, A. M. &c. Professor of Midwifery to the King and Queen's College of Physicians in Ireland, &c.*

ON the importance of being well acquainted with diseases that at present are not curable by medicine, as well as with those that are so, we need say nothing here. If only for diagnosis' sake, they are subjects of anxious and careful study to the scientific practitioner of medicine. Diseases of the uterus are extremely common, and the malignant affections are not unfrequent, but again and again are women pronounced to labour under them, when they do not in reality exist.

* Dublin Hospital Reports, Vol. V.

Dr. Montgomery, the author of the paper we are now to notice, has witnessed eighteen cases of cancer uteri since the commencement of the year before last, and he laudably communicates to the public what he thinks is worth its consideration. At the same time he regrets that he must disclaim altogether being able to point out any new means of giving relief. This is modest, and what we might expect from a man of considerable experience. A person who had seen but two or three cases in his life, would probably have written to the praise and glory of some almost untried specific.

Case 1. "On the 15th, Aug. 1827, I was called on to examine I. Henry, in Sir Patrick Dun's Hospital. She stated her age to be 41, but appeared older; she had been five months ill, and now complained of severe lancinating pains in the small of the back, and darting 'like lances' in different directions through the pelvis, particularly in the left iliac region, in the direction of the sigmoid flexure of the colon, and commencement of the rectum, in which situation she described it as a burning pain, and this sensation of burning was also severely felt about the internal margin of the anus; the lancinating pain extended also down the inside of the thighs, along the course of the obturator nerve.

There was a copious sanious discharge of a fetid odour from the vagina, and on making an examination, I found the os and cervix uteri enlarged, hard, and so low in the pelvis as not to be more than two inches from the external parts: the labia of the os uteri being both enlarged and projecting, made the orifice feel to the touch open and gaping; the surface with which the finger came in contact was very unequal, and communicated the sensation that would be experienced by passing the tip of one's finger over and among the tops of all the fingers of a hand collected together; the upper part of the vagina and uterus were immoveable, as if firmly united to the adjacent structures."

This state of the uterus soon began to alter; early in October ulceration began, and at length it had proceeded so far, that it was difficult to feel any distinct boundary of the uterus. On the 23d Nov. the legs were found slightly anasarcous, and the patient said she had passed no water for three days, and that she felt no desire to void any. Two days afterwards the anasarca had spread, and still no urine had been passed. The catheter was introduced, but none escaped. This went on till the 27th, when the anasarca had become extreme, and suddenly a gush of water, like urine, came from the vagina, and continued to flow without intermission for 48 hours, the anasarca so rapidly decreasing, that on the 30th there was hardly any of it left, nor did it again recur. Incontinence of urine remained, and, on examination, the posterior part of the cervix of the bladder was found to have sloughed away, leaving an aperture into the bladder from the vagina, through which the thumb would readily pass. In addition to the usual distressing symptoms, violent vomiting in a few days took place, and although stopped, for a brief interval, by the application of folds of lint, soaked in the acetum opii, to the epigastrium, it proceeded, and carried off the patient on the 24th December.

Sectio Cadaveris. The great omentum descended into the pelvis, and was adherent all over the fundus uteri, and uterine extremities of the fallopian tubes. The ureters were the size of the large intestine of an infant, their coats were quite transparent, and their length was so increased that they were quite serpentine in their course. On dissecting out the pelvic viscera, and making a longitudinal section of the rectum from behind, there was seen, about eight inches from the anus, a stricture of the gut, reducing its diameter to scarcely half an inch. The intestine, for about two inches above this stricture, and four or five inches below it, presented on its internal surface the true scirrhous deposit, and its coats, especially about the stricture, were greatly thickened; the portion next the anus was healthy, with the exception of a few hæmorrhoidal tumours. All the cervix, and a great

part of the body of the uterus were gone, and the remainder was double its natural size and thickness. The posterior surface of the bladder, comprising the cervix and entrance of the ureters, had been destroyed, leaving an opening equal in diameter to a half-crown-piece. The internal surface of the bladder exhibited the same morbid alteration as the rectum.

"The pathological changes here observed account in a very satisfactory manner for some part at least of the symptoms, the cause of which during life was, at best, but a matter of conjecture, I allude to the suppression, and afterwards incontinence of urine, and their relation to the anasarca.

It seems to me almost demonstrable, that the cause of the suppression of urine was the mechanical closure of the orifices of the ureters by the thickening of the parts surrounding them, which took place in consequence of the inflammation (which I believe to be always the first stage of carcinomatous affections) having seized on that part of the bladder; so that the urine could not affect its entrance into that organ, while at the same time it was rapidly secreted by the healthy kidneys, and poured into the ureters until they became greatly distended, and then another process was set up in the system to compensate for the usual urinary excretion, and the superfluous fluids were poured into the cellular membrane in different parts of the body, from whence they were again as rapidly recalled as soon as a vent was re-established for their discharge, which we know was effected by the death and separation of that portion of the bladder into which the terminations of the ureters penetrate, in consequence of which, incontinence took place, and a perpetual draining of fluid from the system was established, by which, as already mentioned, the anasarcous effusion was completely removed at the end of two days.

A change in the state of the urethra took place in this patient, which I have almost always observed to happen when the bladder becomes involved in the disease, and particularly when urine is discharged from it without passing through the urethra. I allude to a remarkable contraction of the external extremity of that duct, and of its orifice in particular, so that even a small catheter or bougie cannot be introduced without considerable difficulty, and of course the infliction of much pain; in consequence of this, if an attempt be made to introduce the same catheter which we may have used with the patient, previously with the utmost facility, it will be found quite impracticable to pass it without causing great distress and pain; aware of the probable existence of this constriction, we should therefore in such cases, I think, always use an instrument of a small size."

Case 2. On the 9th Feb. 1828, Dr. Montgomery was called to see Ann Clark, æt. 52, who had had eleven children, the youngest nine years old, and miscarried once. In Dec. 1827, she first perceived a swelling of the left thigh, attended with some pain and soreness about the groin. The whole limb was now considerably swollen and anasarcous, and some of the inguinal glands were enlarged, hard, and tender to the touch. She complained of some pain along the limb, of sharp pains in the lower part of the abdomen, darting downwards, through the pelvis, towards the uterus, and there was some leucorrhœal discharge from the vagina. On examination, the os and cervix uteri were enlarged, indurated, and very irregular, and the parts about the upper end of the vagina consolidated into one mass, rendering the uterus quite immoveable. The functions of the bladder and rectum were not interfered with; the appetite was tolerably good. Iodine was tried, but disagreed, and was omitted. All at once, the discharge from the vagina changed its character to pus, mingled with a brownish matter and small shreds, and then the usual melancholy train of symptoms set in. Some difficulty in passing the stools occurring, the rectum was found to be compressed, about four inches from the anus, by the enlarged and scirrhous glands in the pelvis. The effect of this was obviated by keeping

the bowels open. On the 29th of July the patient died. There had been no hæmorrhage from the vagina.

"Extreme emaciation of the whole body: the pelvic glands were so enlarged that the cavity of the pelvic was completely filled by them, and the uterus quite borne up out of its natural situation; the rectum also from the same cause, was pushed out of its usual course and descended along the right side of the sarcum instead of the left, and at about four inches from the anus its calibre was so diminished that it would not receive more than the little finger into its cavity; this portion was completely girt about by the enlarged pelvic glands, and when cut open the coats of the intestine were observed to be considerably thickened at this spot: this at once explained the cause of the complaint made by the patient, 'that a bone had got into the gut:' in other respects the intestine was healthy.*

The uterus was very extensively destroyed by the ulceration, as was also the upper portion of the vagina; the cervix uteri and the lower half of the body were altogether gone; the upper part of the body and fundus were reduced to one half of their natural thickness by ulceration on their internal surface, in consequence of which the upper part of the organ was rendered quite hollow, and would easily contain a fig.

The bladder had become engaged in the disease; a portion of it, equal in extent to the size of a crown piece, at the back part and toward the right side, had become affected with true scirrhous thickening, the coats being about half an inch thick, and of almost cartilaginous hardness; but no ulceration had taken place, nor was there any dilatation of the ureters.

In the integuments of the left side, between the margin of the ribs and the crest of the ileum, there was a small round tumour of about an inch in diameter, which on being cut presented the scirrhous structure; and there were in the omentum some smaller tumors of a similar character. The enlarged pelvic glands, in this case, and I had occasion to make the same remark in several other instances, presented very different characters, some being as hard as cartilage, and uniform in their texture; others of a caseous consistence; while others presented the scirrhous character so perfectly, that I have preserved a section of one of them, as a specimen of that morbid structure."

Case 3. Sarah Kearney, æt. 36, came under Dr. Montgomery's care on the 12th June, 1828. She had severe pain in the back, darting through the pelvis and down the inside of the thighs, and a discoloured and offensive discharge from the vagina. On examination the os uteri was found low in the vagina, enlarged, hardened, and irregular. The upper extremity of the vagina was consolidated with the surrounding parts, the recto-vaginal septum unusually thick and firm, but there was no inconvenience in discharging either the bowels or bladder. She had been three months ill, and the complaint had commenced with irregularity in the catamenia, followed by uterine hæmorrhage, of which she had repeated and very profuse returns both before and

* "In the Ed. Med. Journ., Jan. 1829, p. 220, a case is recorded in which constipation was induced by this kind of compression, and lasted *nine weeks;* 'all efforts to procure the passage of the fæces, either by injections thrown up in great quantity or by bougies, completely failed."

'During this time the patient was subject to occasional paroxysms of severe pain in the bowels, accompanied with the most distressing sense of distention; *but her sufferings were by no means permanent:* and except upon the occurrence of such fits she felt *no very great uneasiness*, and was even able to get out of bed and exert herself in her usual occupations. Her pulse was little disturbed; her appetite tolerably good; and her strength not very materially impaired: no vomiting of fœcal matter; indeed no vomiting of any kind occurred during the continuance of the disease."

since her admission into the hospital. On the 24th July she began the use of the tinct. iodinæ, and in 10 days a marked amendment had taken place. The quantity of the iodine was gradually increased from seven drops to fifteen three times daily. The general symptoms were vastly improved, and on the 25th Aug. the uterus was found decidedly reduced in size, much softer, and more mobile. She went on till the 19th Sept. when she seemed restored to perfect health, but on the 20th, tremors and the other bad symptoms produced by iodine set in, and it was necessarily discontinued. Early in October all the former unfavourable symptoms were renewed, and iodine only brought a partial relief. At one time she had many of the symptoms of organic disease of the heart, which were removed by antispasmodics. In May, 1829, perforation of the bladder took place, the patient went into the country, and there she died. She was not examined after death.

"The perforation of the bladder was preceded in this patient by a train of symptoms, which although much less marked than in the case of Henry, are I think worth noticing, because I have observed them to occur very generally in such cases, announcing the approach of that miserable change: about five, six, or seven days before the slough takes place the patient tells you she is troubled with the gravel and has great difficulty in passing water, which she accomplishes with pain; next she tells you that she passes much less than usual; and lastly, for a day or two before the incontinence commences, she passes hardly a drop, perhaps none, and then all at once it flows involuntarily. In such cases, after death, I have always found the ureters greatly dilated.—See p. 417. In those cases where considerable disturbance in the functions of the bladder exists perhaps from the commencement, these premonitory symptoms cannot, of course, be distinguished.

The iodine in this case appeared to restrain uterine hemorrhage not to excite it, an effect generally apprehended from its use.

This may be considered as an early instance of the disease."

Case 4. Esther Henright, æt. 30, seen May 7, 1829. Has had five children; was married at the age of 14; before 15 was affected with syphilis; and has led a very irregular life. Four months ago she fell in the street aud struck her hip and side. Immediately after she had a profuse hæmorrhage from the vagina, which has frequently returned since. She had little discharge until two or three weeks ago, when she began to suffer pain and to have a constant discharge, which is generally discoloured. She had not the aspect of organic disease. On examination the os uteri was found low in the vagina, enlarged, hard, irregular, quite consolidated with the top of the vagina to the neighbouring parts. On applying the speculum there were distinctly seen patches of ulceration which had partially destroyed the os uteri and extended to a distance of more than half an inch within the cervix. The disease marched on as usual—in July perforation of the bladder took place—the patient suffered from very severe pain shooting from the centre of the pelvis through the right hip, and in the course of the sciatic nerve, and best relieved by the hip-bath, with a stimulating anodyne liniment—during the last five or six weeks of life there was incessant vomiting, accompanied with slight pain, and tenderness on pressure over the stomach, but not in the other parts of the abdomen. She died on the 24th Sept.

Sectio Cadaveris. Universal peritoneal inflammation—small intestines adherent, in three or four places, to the fundus uteri, as was the great omentum—cervix and great part of the body of the uterus destroyed, as was a portion of the bladder as large as a half crown—ureters distended to the size of a swan's quill.

This was one of the earliest instances of the disease, in respect to age, which our author has observed. This and another patient are the only ones in whom he has witnessed adhesions of the omentum to the

uterus, and in both there was incontrollable vomiting.

Case 5. On the 10th June, 1829, our author was requested to see a lady, æt. 42, who had borne twelve children, had been twice severely affected with syphilis, and had suffered from the unskilful use of instruments. In the preceding January, after a sudden mental emotion, she felt "as if machinery were turning round inside her" in the situation of the uterus. She was then seized with a leucorrhœal discharge, for which she used an astringent wash, which made her worse and deranged the bladder. The catamenia, which had been regular stopped. In April she had a considerable hæmorrhage from the uterus, followed by constant watery discharge. On the 8th June she had another profuse uterine hæmorrhage. She had no pain whatever. On examination, the vagina was found filled by a tumour, of very irregular, shape, as large as an orange, very firm, lobulated, totally insensible. The os uteri could not be detected, but most probably the tumour took its rise from it. The upper part of the vagina was immoveable, as if from consolidation with the surrounding parts. On the 16th, our author proceeded to remove the tumour by ligature, with a Niessen's canula, and the assistance of Dr. Benson. With much difficulty he succeeded in inclosing about two-thirds of the tumour. The patient suffered no pain, nor did any hæmorrhage follow. The ligature was tightened morning and evening till the 18th, when the canula and ligature came away, the noose inclosing a portion of the tumour about as large as a walnut. Several pieces came away with a tepid injection, and the same thing had occurred after every tightening of the ligature, attended, after the first day, with a very strong smell of putrefaction. On examination there appeared no possibility of re-applying the ligature, and on using the speculum, the tumour had a rough broken surface, as if from very unhealthy ulceration. On the 24th June, the patient complained, for the first time, of a soreness and burning in the lower part of the abdomen and pelvis, with some hæmorrhage. This was relieved by leeches, &c. On the 8th July, a good deal of the tumour was found to have been destroyed by ulceration, which had spread to the sides of the vagina. The discharge was more profuse and purulent. Œdema of the lower extremities came on—there was no cessation of pain or disturbance of the bladder. On the 5th September prostration set in, and on the 8th she died.

Sectio Cadaveris. Intestines lying nearest to the brim of the pelvis united to the uterus and to each other by organized lymph—great omentum free. General consolidation of all the parts in the pelvis and softness of their textures—pelvic glands greatly enlarged, several of them of scirrhous structure. Rectum united to the posterior wall of the vagina and uterus, its parietes lacerable. Whole posterior surface of bladder covered internally by the peculiar brownish incrustation attending ulceration, which was seen in several patches, rendering the bladder excessively thin. Vagina ulcerated almost throughout, particularly at its uterine extremity. Here some of the bunches of tumours still remained unaltered; it was difficult to determine their origin from the vagina, or os uteri, or both. The cervix and os uteri were completely destroyed. Part of the body and fundus remained, their colour of a brownish inky darkness, their texture soft and shreddy.

Our author is in doubt of the cancerous nature of the preceding case, neither can he give a precise name and definition to the tumour.

Case 6. Ann Coffey, admitted into hospital in May, 1828. On the 18th June, she complained of wind passing from the rectum into the vagina. On introducing the finger into the vagina, these adhered to the shells of the grotts of which the gruel was made. Yet no breach was detected in the recto-vaginal septum and the stools were expelled by the anus; there was no evidence of ulceration in the vagina or os uteri. She died on the 26th. A few days before death she had considerable hæmorrhage from the vagina, and several clots of blood

were mixed with fœcal matter. By mistake she was not examined.

"This was the only case under my own care, in which I had reason to think that the destructive ulceration commenced, in the first instance, towards the fundus uteri, which I have very little doubt occurred in this case, and union having previously taken place between the diseased organ and some fold of intestine, the latter became perforated, in consequence of which the substances already mentioned passed at once into the uterus, and escaped from the vagina.

This is rather a rare occurrence, of which, however, I saw one other instance, in an examination after death, in which an opening had been made by the ulceration, in the centre of the fundus, and into the ileum, which had become united to it."

Case 7. Jane Shannon, æt. 50, admitted May 1828. Pain in the back shooting through the pelvis—constant leucorrhœal discharge from the vagina, sometimes tinged with blood—occasionally slight hæmorrhage. On examination a firm ring or band was found surrounding the vagina, about an inch and half from its pubic end. It was as hard as cartilage, abont half an inch broad, constricted the cavity of the vagina at the part to the diameter of about half an inch, and scarcely admitted the finger, which could just touch the os uteri; this was irregular, hard, and gaping. The patient would submit to no treatment, and left the hospital. On the 21st Sept. she was re-admitted. She had great pain in the loins, shooting through the pelvis; was exceedingly nervous; the appetite bad; the bowels confined. The circular band in the vagina was nearly as before, but the os uteri beyond was much less prominent, and felt soft and indistinct and ulcerated. On applying the speculum, the parts beyond the constricted portion were in a frightful state of ulceration spreading in every direction, and extending nearly an inch within the cervix; the os uteri almost destroyed. She could not retain her water long, and in the course of a few days she had complete incontinence of urine, followed by loss of power over the sphincter ani. For more than a week before death the vagina was the common outlet for the foul discharge of the uterus, the urine, and the fæces. On October 7th, when making an exertion, she suddenly complained of a piercing and burning pain in the pelvis, so intense that nothing could relieve it. On the evening of the next day she expired.

Sectio Cadaveris. Body not much emaciated. Kidneys healthy. Ureters greatly dilated and elongated. The right was in some parts three-fourths of an inch in diameter, and its pelvis greatly enlarged; it was ten or twelve inches long, and serpentine in its course. The left was not near so large. The portion of the bladder which had been destroyed, which was about the size of a halfpenny, had engaged and destroyed the termination of the left ureter, whilst on the right side the ulceration had not extended to the orifice of the ureter, the last half-inch of which was so obstructed by the pressure of the diseased mass that not a drop of urine would flow through it. At the back part of the uterus, and rather to the left side, there was a rupture in the peritoneum about an inch and half in length. The rupture was evidently the result of the ulceration which had eaten through the back part of the uterus, until nothing was left but the peritoneal covering, which gave way after an exertion of the patient. An aperture of about an inch in diameter was found between the bladder and vagina, and another of nearly the same size between the vagina and rectum.

This is the only case which our author has witnessed, of fatal perforation of the peritoneum produced by cancer uteri. He believes it is very rare. He has only seen the scirrhous band surrounding and contracting the vagina in another case besides the present.

Case 8. A patient, aged 45, applied to Dr. Montgomery. She stated that for three months previously she had been labouring under a burning sensation in the pelvis, with occasional lancinating and darting pains;

she had had a considerable discharge, at first leucorrhœal and afterwards resembling pus; and she had experienced, at the same time, a difficulty in passing water, accompanied by a severe sensation of burning and scalding in the urethra. Two months previously she had applied to a medical man, who pronounced the case to be gonorrhœa, and prescribed cubebs, which she took for a month, and then, finding herself worse, gave it up. She had lately had one or two hæmorrhages, and the discharge had become discoloured and foul. On examination Dr. Montgomery found cancer uteri so fully established, that in four months she had fallen a victim to its ravages.

This case is calculated to inspire caution, and to impress upon medical men the necessity, the imperative necessity, of examination of the vagina and uterus in the discharges of females. We think that our readers will coincide with us in opinion, on the interesting character and practical value of the foregoing cases. Surgeons are not so well acquainted as they should be with the malignant diseases of the uterus, and that we have frequently observed. From the cases which we have witnessed, we should say that Dr. Montgomery's conclusions are, on the whole, very correct. We must find room for his concluding observations.

"If it appears that in the relation of the foregoing cases too little mention has been made of the practice adopted in the treatment of the disease, it should be recollected, that such was not the object of this paper, and even if it had been, I had nothing new to offer on the subject: every thing failed to cure, and the means of relieving pain in such cases are too well known to require even to be mentioned.

Upon the use of *Iodine*, however, as a remedy but lately sanctioned in practice, and by many supposed to possess great powers in cases such as I have been describing, I may observe, that as far as the result of ten of those cases in which I have used it, may warrant me in pronouncing upon its merits, I am of opinion that it will disappoint the expectations entertained of its powers in this disease; at least, it has done so completely, in my hands, in every case except that of Sarah Kearney, p. 427, where it certainly produced extraordinary, though temporary benefit in the condition of the patient, but had little or indeed no power in arresting the progress of the disease.

The use of the *Speculum uteri* also, may to some be a matter of novelty, as it certainly is, of interest. In these cases, and in many others, I have found it a most valuable assistant, by means of which, and in general with very little inconvenience to the patient, we can submit to the eye the state of parts, whose condition otherwise must necessarily be determined by little better than conjecture; let me however offer one observation, in the way of caution, regarding its use in these cases, where destructive ulceration *has been some time going on;* under such circumstances its introduction, however skilfully managed, may be productive of unpleasant consequences, by lacerating parts already almost eaten through by the disease; one instance of this occurred under my own observation, in which the vesico-vaginal septum, already deeply ulcerated, gave way upon the introduction of the speculum, and incontinence of urine, of course, immediately afterwards took place, and the additional misery thence ensuing was, very naturally, attributed by the patient to the operation, and not to the disease. It will not be out of place to mention here, that I have lately used this instrument in the adoption of a practice which, though now spoken of as new, was accurately described by Nigrisolius in 1665, I mean the application of leeches to the os and cervix uteri; this I have done three times in a case of irritable uterus, and with the most satisfactory effect.

This appears a fit place to allude to the operation of excision so much practised of late on the continent for the cure of cancer uteri; and certainly, as far as my experience has enabled me to judge, I feel quite prepared to declare my conviction *of its almost universal impracticability, and of its utter inutility when the disease really exists and is*

developed: the first morbid changes in the organ usually take place at a time of life when disturbance in function is regarded as a matter of course, and uneasy sensations as a natural consequence, and even these are only occasional, so that the evil creeps on unperceived, until a profuse hæmorrhage, an acute pain, or a foul discharge, first sounds the awful alarm to the patient; and when an examination is made, the disease is detected fully formed, and in general with consolidation of the neighbouring parts; the pelvic glands being in the great majority of cases contaminated by the disease almost from the beginning.

It is moreover quite ascertained, that the disease, instead of first shewing itself in the cervix, or os uteri, very frequently commences in some of the appendages of the uterus involving the surrounding tissues, or in the upper part of the organ, and thence spreading downwards, manifests itself last in the cervix; so that even should we succeed in removing the part which we have ascertained to be diseased, we leave *the disease* still behind. As a matter of observation on the subject, I may state, that not one of the cases of the disease which I have met with, would have admitted of or justified any modification of this operation.

The dilatation of the ureters, which has been so frequently noticed in the above cases, is referred by Andral, Precis. tom. ii. p. 685, to the pressure of tumors on the bladder, by which its cavity is almost completely obliterated. This explanation is altogether at variance with my observations.

In the case of Clarke for instance, where the cavity of the pelvis was more occupied by tumors than in any of the others, there was no distention of the ureters, because the disease had not encroached on their terminations in the bladder, while in every instance in which they had become involved in the morbid change the distention was found to exist, and sometimes considerably more at one side than the other, as the termination of the one happened to be more or less involved in the morbid thickening.—See p. 450. And I may add in addition, that within the last week I examined the body of a patient who died of this disease, and in whom perforation of the bladder had taken place: there was no tumor to press on the bladder, and while the right ureter was distended to the size of one's little finger, the left remained unaltered."

LXVIII.

ST. THOMAS'S HOSPITAL.

INJURIES OF THE HEAD.

CASE 1. *Slight Concussion of the Brain.—Contused Wounds of Scalp, the Periosteum not denuded.—Erysipelas of Head and Face.*

Samuel Ward, ætatis 44, a horsekeeper in the employ of Messrs. Barclay, the brewers, was struck down in the affray at the Borough election on the 23d November, and was brought into hospital immediately. The men who conveyed him here stated that he had received a heavy blow on the occiput with a thick cudgel, whilst his head was uncovered, from which he fell instantly; and when he lay upon the ground he was kicked and by other means hurt about the head. There was a tolerably clean wound, two inches in length, to the right of the occipital protuberance, in direction from before backwards; there was some contusion around the edges of the wound, and a great deal of blood had flowed from it; the pericranium was uninjured. Two smaller and more ragged wounds were situated on the left side and on the vertex, and from these free hæmorrhage had occurred; the parts around them were also swollen. The occipito-frontalis tendon was not divided in either. No depressing effect was now left on the sensorium, the senses appearing all perfect; the intellect was not confused, and the surface of the body was warm and natural, the first stage of concussion having passed off. He spoke of no pain in his head but that which proceeded from the wounds—there was no vomiting or sickness—pulse accel-

erated to 90, but natural in its beat and regular. The patient coughed, as if from chilliness; he said he had not been subject to this symptom. A cold bread poultice was applied to the shaven scalp by the dresser's direction, hæmorrhage having speedily ceased spontaneously.

Vesperè. Patient has been perfectly quiet, and inclined to sleep—has had some pain of head, and his skin is rather hot—answered to questions quite coherently, but appears listless and dull—his eyes have lost the natural degree of expression, but the pupils contract and dilate naturally—pulse 100, soft, and regular—slight nausea during the day, but no vomiting. Some house medicine has been given, which has not yet operated, and his head is properly elevated on pillows.

Nov. 24th. Got but little sleep in the night, and has had some pain in his head constantly, though not severe—lies on his belly, and appears much more dull; indeed, he may be said to be in a state of slight stupor—pulse 100, not hard, or full, or irregular—skin moist, rather hot—bowels opened from the physic—wounds are healthy in appearance, and yield a purulent discharge. Mr. Tyrrell ordered ℥xvj. of blood to be abstracted from the nape of the neck by cupping.

About twelve o'clock at night, the pain of head having increased, the skin become dry and more hot, and the pulse more full, with restlessness and great confusion of ideas. Twelve ounces of blood were drawn from the arm, and it afforded very great relief.

25th. Had some sleep; pain of head continues, and also that in the wounds, which have unclean edges, disposed to sloughing, and there is tenderness around them on pressure. Patient is now free from incoherence, but lies drowsy and seems averse to answer when spoken to—pulse 90, natural in its beat—tongue clean, and moist—bowels open. A hot linseed poultice was now applied to the wounds four times a day.

26th. Passed a very restless night, and is considerably worse this morning—he is quite sensible, but drowsy, yet unable to sleep—countenance pale and distressed—pulse 120, very small and feeble—tongue still clean and moist, but there is dryness of the fauces and thirst—sickness but not vomiting—skin cool and dry—wounds of scalp very painful, their edges are sloughing but not to any extent—the pain of head is less, but has continued during the night. Mr. Tyrrell prescribed cal. gr. j., ant. tart. gr. 1-4, 6tis horis.

27th. Rested a little last night, but has suffered a great deal of pain in his head—pulse 120, not so feeble as yesterday—tongue clean, but dry; fauces and mouth dry—thirst increased—skin cool. He is less inclined to sleep, and his appearance is, upon the whole, improved—bowels open.

28th. Pain of head and scalp continues equally severe, but the man is much better—he slept a little in the night, and was refreshed by it—has no drowsiness or stupor—pulse 100, of more power, and regular—less dryness of fauces and tongue.

29th. Erysipelas has appeared around the wounds, and occupies a considerable portion of the face, the affected parts of which are much swollen; it extends forwards to the eyes and posterior border of the cheeks. The wounds afford no discharge, but their edges are not more sloughy. Patient was delirious all the night, and is now so, but not violent—pulse 118, irregular, the beats at one time feeling dilated under the finger, and contracted at another, and compressible by the slightest force; tongue generally white, but not very dry; bowels freely open. Mr. Tyrrell ordered eight leeches to each temple. The calomel and ant. tart. to be taken every four hours.

9, p.m. Face more swollen and involved to a greater extent in erysipelas—delirium unabated, so that he is confined by a straight-waistcoat—pulse unaltered since morning—tongue become rather yellow, and dry—mouth also more dry. Around the wounds on the scalp a soft doughy feel is communicated to the fingers on pressure, as if matter or sloughs were formed beneath. This sensation is not, however, very perceptible; but Mr. Green, who was

requested to visit the patient at this time, in consequence of the impression conveyed to his fingers, and from his experience of their good effect in these cases, recommended two incisions to be made about two inches long, near to the wounds, and down to the pericranium. This was done, and a small quantity of pus escaped from the incisions. Rather more than twelve ounces of blood were also thus obtained, as the cuts bled freely.

30th. Still equally delirious, and the erysipelas has spread on the face—pulse 120, rather more feeble. He was for a short time quieter after the incisions of last night, but has been continually talking aloud and incoherently—the extremities have been cold for the last few hours—bowels not open since yesterday morning. Mr. Tyrrell ordered him to have immediately, ammon. subcarb. gr. x., mist. camph. ℥iss.—half a pint of mist. sennæ co. to be thrown up the rectum, tepid—with the following draught every two hours: R. Ammon. subcarb. gr. vj., Tinct. hyosciami, ℥v., Mist. camphoræ, ℥j. The calomel and tartarized antimony have been this morning omitted.

9, p.m. A sudden loss of power has come on within the last two hours—there is less redness of the parts inflamed, and a death-like pallor over the rest of the countenance—difficulty of breathing has come on, and this is loud, and the patient lies with his mouth some way open—he is singing at intervals loudly, and the delirium is undiminished—pulse very low. An abundant stool has been brought away by the injection. Remedies continued.

Dec. 1st. He continued in this state for nearly two hours, the pulse becoming weaker and the extremities colder, when some porter and an ounce and an half of brandy were given to him, after taking which his pulse rose and he fell asleep instantly, and had an hour's rest; he shortly slept again for three hours, awaking about 8 o'clock this morning composed, and nearly free from delirium. He now lies quiet, and is capable of answering consistently; says he has some pain in head—surface of the trunk and extremities warm—countenance tranquil, and respiration much easier, though loud—pulse has more power than since delirium set in, 120—tongue dry over all its surface, but not furred, or discoloured—gums are a little turgid from the calomel—bowels open. Mr. Tyrrell gave orders that he should have ibiss. of porter in the day, to be given at intervals, and not more than half a pint at one time; this being the accustomed stimulus of the man when in health, and used to great excess, was preferred for that reason. Perg. c. haust. 2dis horis.

10 p.m. The powers of the system have a little flagged during the last few hours, and the pulse is 126, weaker, and tremulous under the finger—he has kept up during the day well—breathing rather more laborious, and louder—surface warm—lips and fauces drier, and sordes are beginning to collect about the former and teeth—has just had a little brandy, which has revived him in some degree; has consumed nearly a pint of porter, but taken no other nourishment. The bowels have been opened two or three times in the day, but they were not purging stools. The medicine has been taken regularly.

2d, 1 o'clock, a.m. Has been evidently sinking, but his pulse and strength have been in some measure kept up to this time by brandy given in gruel at repeated intervals.

This stimulant was continued during the night, but coma soon supervened, and he was then unable to swallow any liquid. The breathing became weak and irregular, and the pulse so indistinct that for some time before death, which took place about 9 o'clock this morning, it could not be felt at the wrist.

Inspection of the body 28 hours after death. The scalp surrounding the wounds was greatly thickened, and a small quantity of pus existed between their edges, which were sloughy. Upon removing the calvarium, the sinuses of the brain were found in a most turgid state, the dura mater itself being rather vascular, (that is, its venous branches were distended,) and adhering firmly to the bones. About two ounces of serous effusion were observed between the arachnoid membrane and pia mater. The arachnoid

was free from opacity or deposit. The vascularity of the pia mater was increased, or, more strictly speaking, its veins were more turgid than natural. Between the anterior and middle lobes of the cerebrum some extravasation of blood had occurred from the injury. Little or no effusion had taken place in the ventricles.

There were slight adhesions of the lungs to the pleura lining the chest, and some hard tubercles existed in the upper lobe of the right lung, but they could not be considered sufficient to interfere with the functions of these organs.

Mr. Tyrrell observed on this case, in a clinical lecture, that it might be regarded as one of unusual interest. At first it was one of slight concussion of the brain, complicated with external injury; then erysipelas supervened, accompanied by delirium somewhat peculiar in character. This delirious state, in his opinion, very probably arose from a deficient supply of blood to the brain, the consequence of a want of the accustomed quantity of stimulus to the system. To distinguish delirium originating in inflammation of the membranes of the brain or its substance, from that produced by inequality or irregularity of circulation through the cerebral organ, requires doubtless considerable tact in most instances, and in many is impracticable. In the latter kind however, we generally find a pulse, very frequent, but excessively irregular, a few beats being dilated, others contracted, and the current of blood is most easily arrested in the vessel; the patient is not violent; the extremities have a tendency to become cold; and loss of power in the constitution becomes manifest early. And it is also found almost invariably to occur in persons addicted to an extravagant use of ardent spirits, or fermented liquors. With respect to the action of remedies upon this kind of delirium, it is likewise ascertained that the exhibition of stimulants, and especially those of which the patient has been in the habit of making use, is attended with the most unequivocal success. In the present case, we find on the 29th November, the day erysipelas and delirium set in, it is reported that the patient is not violent, and the character of the pulse then specified was very marked. From this condition of the pulse and the kind of delirium, Mr. T. thought that the case would do well under the employment of stimulants at a later period. Illustrative of this treatment, he related three most interesting cases which had come under his care at this hospital, and on which he founded his opinion. The first was that wherein amputation of a limb had been performed 48 hours after a severe injury. The stump became sloughy, and in 62 hours from the loss of the limb delirium was established, unaccompanied by violence; the pulsations of the artery at the wrist were now dilated, now contracted, and the flow of blood in the veins was readily obstructed. The man having been largely addicted to spirits, porter and gin were ordered. Sleep was immediately obtained; delirium subsided in a surprisingly short time; the pulse became regular, and of more power; and the case from that period went on well. In the second, which was an example of diffuse inflammation of the cellular tissue, mortification was threatened, and indeed vesicles had formed on the limb. The patient had delirium soon after this, of the same character, and a pulse also of a similar kind. By giving gin and brandy, which were the common stimuli of his patient, these symptoms disappeared. The third case mentioned was a compound fracture of the lower part of the humerus; the bone was much comminuted, and the fracture extended into the elbow joint. The face of the body was cool, and the patient had most remarkable self-possession; when amputation was alluded to, he seemed quite unconcerned, and left every thing to the decision of Mr. Tyrrell, expressing his fullest consent to whatever Mr. T. might judge proper. Seeing the great command the man had over his feelings, Mr. T. thought this decidedly in his favour, and determined on making an attempt to preserve the limb. Proper means were carefully taken, as the importance of the case demanded. The patient was plainly a little intoxicated at

the time; but the case went on very well for the first few days, when delirium commenced, and sloughing took place in the wound. This continuing till the next day, Mr. Tyrrell came down to the hospital with his instruments, having resolved on amputating when he heard what state the man was in that morning. The patient's wife being present in the ward when he entered to visit him in almost a hopeless state, as the man was rather tipsy on admission, Mr. T. asked her what habits of life her husband had indulged in, and was told that he had lived very *regularly*. This regularity, however, proved to consist in his taking eleven or twelve glasses of gin every morning before breakfast. On being loudly asked whether he would like to have some gin, the word in his delirious state caught his ear, and it was no doubt recognized as his particular favourite, as he kept on repeating it for several times and spoke of nothing else. Some was therefore instantly put to his mouth, and soon swallowed, together with some porter. It was scarcely taken, when he fell asleep, remained tranquil, the delirium ceased in a few hours, and he ultimately got well; the limb being saved and but slight anchylosis existing.

From these causes Mr. Tyrrell was led to think that the one which formed the subject of the present lecture would terminate in the same way under the use of stimulants. His impression now is that the measures, consistent with the view he had taken of the case, were not adopted early enough. For some time before the patient's death, he prognosticated to the pupils and dressers then by the bed side, that serous effusion would be found generally existing between the arachnoid membrane and pia mater, which we see corroborated by post mortem examination. His reason for expecting this appearance was that the patient had been too long in a state of tranquil delirium, without evidence of active vascular action, for meningeal inflammation to continue; and effusion of serum is known to be the result of inequality of circulation in the brain, which is best relieved by nourishment, and where, as in the present case, the system has become habituated to the common stimulant beverages, by giving these and with freedom. In treating the case, it might be said there existed two different states of the brain; the one, from concussion, and the other from eyripelas. The time for administering stimulants was therefore less obvious than if the erysipelas had been uncomplicated; for where concussion has occurred, we should be very careful that we err not in having recourse to these remedies too early.

CASE 2. *Concussion of the Brain.*

James Baker, æt. 20, admitted Nov. 23d, in a state of intoxication, and with his face besmeared with blood, from a blow on the nose, and lower part of face. He had also received a severe blow from a cudgel on the back part of his head, which levelled him to the ground. When admitted, he was very violent, evidently from the effects of liquor, would not be put to bed, nor suffer his clothes to be removed till he was compelled by force. To appearance, he was labouring more under the symptoms of inebriety than those of concussion of the brain, yet he was plainly suffering from the latter. He vomited copiously, and the contents of the stomach smelt strongly of rum and gin. The pulse was very small and feeble, indeed could be felt only at times, and appeared about 110, though we cannot state this with certainty, as from the restlessness of the patient and the nature of the pulse itself we had the greatest difficulty in making any enumeration by the watch. Pupils were dilated, and not responsive to light—the surface of the body was warm and moist. Pressure at the lower part of the occipital bone produced pain, indicated by his suddenly rising up from the pillow, as if to enquire after the cause of his suffering; but no injury of bone or soft parts could be detected.

4, p.m. Somewhat recovered from his drunken state, and the pulse is more full and distinct than in the morning, but excessively small, not more than 70. The pupils contracted, upon a candle being brought

near to them. He moans occasionally from pain in the head. The occiput being now shaved, a contusion is observable at its lower part, and exquisite pain seems excited by making pressure upon it—has vomited some more offensive matters. The head is elevated on a pillow, but he is very restless.

10, p. m. He is rather more sensible and quiet, but otherwise there is no alteration since the afternoon—has been somewhat drowsy, and is now dozing—the face is hot and red—ordered, Cal. 5 grains immediately, to be followed in three hours by a dose of house medicine. This was, however, instantly returned by vomiting, and when repeated the following morning was again thrown up as soon as taken.

Nov. 24th. Restless throughout the night, and evidently suffering pain in his head. He now lies in some degree insensible, being aroused with difficulty, but the answers he does give are perfectly rational. He moans a good deal, and the pain of head appears increased—cheecks red but not hot—pulse very small and irregular, just distinguishable, 90—pupils capable of acting—no motion from the bowels. Mr. Tyrrell directed cupping from the back of the neck to ℥xvj. and if necessary in the evening, blood then to be drawn from the arm. His reasons for employing blood-letting were derived rather from the general symptoms of injury to the brain, such as confusion of his intellect, the continuance of pain in head, &c. than from the state of the pulse. R. Cal., gr. v., Ext. Col. co., gr. x., statim.

25th. Pain of head increasing, and the skin beginning to get hot, ℥x of blood were taken last night about eight o'clock. He seemed in some degree more sensible after the bleeding, and passed a few hours in a dozing state, not to be called sleeping, during the night. Lies this morning in nearly the same state as to drowsiness, but answers more readily—has had no vomiting—complains only of pain in head which appears unrelieved—pulse small, 70, and irregular—skin dry, but not hot—tongue white, and furred—bowels opened for the first time at six o'clock this morning, a dose of physic being given last night as the colocynth and calomel had not then acted.

26th. More sensible, and more easily aroused—is constantly dozing, but mutters not, nor moans, and appears free from pain—he, however, complains of pain continuing in his head, but says it is less—pupils are at present very much dilated, nearly to the whole extent of the surface of the iris—pulse more easily felt, 62 and regular—tongue white and dry—skin temperate—bowels twice opened since last report, the dose of medicine being repeated last evening. The lower part of his face, which was a little swollen, has subsided, and no ecchymosis is left. He still flinches on pressure of the occiput, but less than he did—no contusion is now visible.

27th. Sensibility increased—less drowsiness—pupils not so dilated as yesterday—pain of head much diminished—pulse 62, has more power—tongue cleaning.

28th. Improvement in every respect since yesterday.

29th. No pain of head—pulse very small, and felt even with more difficulty than a few days ago, 62—has got rid of all somnolency—bowels open.

Dec. 1. No symptom of injury or mischief within the head is now observable, but the pulse continues in the same very low and small state, and is rather under 60.

3d. Pulse has become more full and distinct, and is perfectly regular and compressible at 64—slight increase of pain of head has come on this morning—tongue white, but moist—bowels open.

4th. Continuance of pain, which he describes as dull and aching, and felt through the whole head—pulse 70, quicker, and feels no longer oppressed.

6th. Has been during the last two days free from pain of head, and he in consequence very imprudently sat up yesterday for a short time without leave.

9th. The patient has had permission to sit up to day—there is no pain, or giddiness about the head.

14th. Slight superficial swelling, with tenderness on pressure, has taken place

on the scalp, but the surface it occupies is small and circumscribed. He has, however, no feverishness. Ordered to have the part shaved and blistered. Confinement to bed, and low diet.

20th. The swelling has nearly disappeared, and the man may be pronounced without ailment.

Upon this case, Mr. Tyrrel observed, in his lecture on the 8th, that although the patient then appeared quite recovered, he should retain him in the hospital some days before he should present him. And the trifling relapse which has lately occurred might certainly have been of serious consequence had the man been at liberty and returned to his employment.

CASE 3. *Contused Wounds of Scalp, with exposure of Os Frontis.*

Ann Hayman, æt. 39, admitted into Queen's ward on Thursday, the 2d Dec. She has two wounds of the scalp, near the left temple, between this and the median line. One (the larger) is at the junction of the hairy scalp with the forehead; and the other is on a line parallel with this, and situated about an inch and half higher up on the scalp. The former is horizontal and about an inch in length, and intersected in the centre by an obtuse vertical cut; the latter is not more than half this size. Their edges are irregular, and in a state not at all favourable for adhesion; those of the wound on the forehead, indeed, are slightly sloughy, and severed to their utmost extent. There is a tolerably free discharge of healthy matter from them, and the bone is denuded at the bottom of both. From the smaller one of the two some very minute pieces of mortar, which the patient considered bone, have come away with the discharge. These wounds were received, we are told, on Saturday last, when the patient fell down twelve or thirteen stairs, and her head came in contact with an angular-shaped post at their foot, by which their irregular figure was occasioned. She was insensible for an hour afterwards, but did nothing more that night than foment her head with hot water. There was also free hæmorrhage from both wounds at the time. The next day (Sunday) she had considerable pain of the head, but no want of sensibility, or confusion of her intellect. On Monday she applied at the surgery of this hospital, and was seen by Mr. Tyrrell with the rest of out-patients. He enjoined perfect quietude, and ordered some purgative medicine and calomel at night, and poultices to the head; but did not think her present state called for bleeding. Since then, the pain of head has continued and rather increased than otherwise; she has had vertigo occasionally, with confusion of ideas, and her memory has begun to fail; the sense of hearing is perfect, her sight clear, and pupils of natural dimensions. During the last few days she has had rigors, accompanied with chattering of the teeth, at frequent intervals; and she has in the mean time felt a constant chilliness, so that the surface could not be kept warm by clothing. No heat of skin, or sweating, followed the rigors. The pulse is 88, rather full, but not hard or irregular; skin in some degree above natural temperature; tongue whitish, not drier than natural; restlessness, and she has had no sleep for several nights; bowels rather confined. Mr. Green ordered as follows on the 3d, when the patient was in the above condition. V. S. ad ℥xij. Cal., gr. j. o. n. Magn. Sulph. ʒj., Vin. Ant. Tart. ɱlxx., Mist. Menth. ℥iss. 6tâ q. horâ. Fever diet. Head to be shaved around the wounds, and to these, cat lini.

Dec. 4. The bleeding produced a little disposition to faintness. She thinks the pain of head is lessened by it, but not to the extent that can say she is relieved, for she slept not better last night than any preceding—pulse 80, reduced in fulness, and quite soft and compressible—has had less chilliness—bowels open twice.

6th. The expression of the patient's countenance is rather altered, and there is a slight irregularity in the motions of the eyeball, the pupils being dilated to some extent. She has not obtained more than a few hours sleep, interrupted at short intervals, during the last two nights. But in the day-time of yesterday she had a continued nap of

some hours. The surface has felt chilly, and last night a rigor, equal in severity to any of the former, took place; it was preceded by increase of pain, and attended by a sensation as if cold water were poured upon the head and back. It lasted above an hour, and at its termination the head was rather easier. No increased heat, or sweating, succeeded it. The pain at other times has been nearly the same in degree, and constant—pulse 84, rather full, but not hard—skin feels to the hand temperate—tongue cleaner considerably, and moist—bowels open. Wounds are in no pain, and discharge copiously—a few peices of hardened mortar have latterly found their way from the bottom of the wounds, very similar in appearance to dead bone.

7th. Passed a somewhat easier night than the preceding, but had very little sleep—has experienced neither rigors, nor chilliness—pain principally in the front of the head, and some throbbing and giddiness—does not seem to express herself quite clearly—pulse 80, soft—bowels opened two or three times a day—wounds look well, and disposed to granulate.

8th. In consequence of prurigo of the whole body, which she says she has experienced for some days, attended with slight efflorescence, the patient went into a warm-bath last night by desire of Mr. R. Whitfield, the assistant apothecary, and this morning she states her head is not worse, but on the contrary, less painful. The surface of the body, she also says, now feels warm for the first time. Her pulse is increased to 88, and is decidedly hard.

Dec. 9th. Reports herself much better in every respect. The pulse has to day returned to 80, and its former softness.

11th. No pain of head, or vertigo—surface feels warm—pulse 76, soft, and regular—calomel omitted—mouth not affected.

14th. Has sat up daily, without any return of former symptoms—wounds almost healed.

19th. Wounds nearly cicatrized, and no unpleasant symptoms about the head remain.

CASE 4. *Compound Fracture of the Cranium, unaccompanied by the usual symptoms.*

We have taken this case from the practice of Guy's Hospital, thinking that it cannot be better placed than in the present report of injuries of the head, from the neighbouring hospital.

William Smith, aged 10 years, whilst crossing the road, was knocked down by a horse, and received from the animal a kick upon the head. He was stunned by the blow, and in that state, which lasted ten minutes, was carried to the Deptford Infirmary, close to which the accident happened. Some light dressing was applied to the seat of injury, and he was thence forwarded in a cart to the hospital, where he arrived about 11 o'clock, on the 2d October, 1830. At this time he was faint, apparently from loss of blood—pulse about 60, and small—hands and feet cold—countenance pale, but not expressive of much suffering. Pupils much dilated, but readily responsive, we cannot say actively so, to the stimulus of light. He had not vomited, and possessed the usual command over his mental powers, answering unconfusedly any questions put to him.

Being placed in bed, the dresser removed the applications from his head. A small, but deeply incised wound presented itself, situated about two inches above the meatus auditorius externus. The blood had then ceased to flow, but the friends informed us that the quantity lost was very considerable. On close examination it was very apparent there was a fracture of the left os parietale, and also that the fractured portion was depressed. There were besides several slight bruises on other parts of the scalp. The little boy was seen by Mr. Key about an hour after his admission; he had then in a great measure recovered from his state of collapse, and was ordered into the operating theatre. The external wound was first enlarged by the scalpel, and this dividing some branches of the temporo-occipital artery, three ligatures were required to restrain the bleeding. A depressed piece of bone was found, of circular shape, and nearly the size of a shilling; Mr. Key tried

to draw this out with a pair of dressing forceps, as it was perfectly free and moveable from the surface, from which it had been detached; but the inner table being fractured to a much greater extent than the outer, he could not succeed in this attempt, as the external apperture of the cranium was not large enough to admit the extrication of the obliquely fractured portion of the inner table, which was driven in for some distance, and consequently pressing against the brain by its whole surface. Having ascertained the cause of the difficulty, Mr. K. sent for a strong pair of bone forceps, and by dividing the bone with these, the two portions were extracted singly, and the operation was then completed. The pieces of bone, which were shewn a few days afterwards to Sir A. Cooper, at first sight explained the nature of the fracture. No wound of the dura mater could be seen, but the patient lost much blood during the operation, from the laceration of a branch of the middle meningeal artery. The bleeding, however, ceased, when the boy ceased to cry. A small piece of lint was applied to the wound, and over it a linen compress, to be kept well wetted with lotio plumbi.

The boy was tolerably comfortable throughout the day, and passed a good night, continuing in this condition till about one o'clock the following day, when he became somewhat uneasy. His pulse, which since the operation had ranged between 80 and 90, advanced beyond 100, and had increased both in frequency and power at three o'clock, when we found him with a remarkably hot and dry skin, the pulse 126 and hard—there was slight strabismus, the left eye being turned unnaturally inwards—he was exceedingly restless, and complaining of great pain in the forehead. His bowels had been twice freely moved by calomel taken in the morning. Looking upon these as symptomatic of inflammation, or at least as premonitory, the dresser took blood from his arm to the amount of six ozs. and this flowing freely, a short state of syncope was obtained. Three hours after the bleeding 15 leeches were applied to the forehead, as the pain, though mitigated by the venesection, was again returning; and a purge of calomel and jalap was given. The pulse was at this time reduced to 85, but intermitting. Bread and water poultice to the wound.

Oct. 4th. Was relieved greatly by the leeches. Has had much good sleep in the night, and is quite easy this morning, yesterday's train of unfavourable symptoms having nearly disappeared. Two evacuations have been procured from the bowels. A small quantity of pus is observed in the wound, which has a healthy appearance.

The little patient went on well daily. In a few days the wound presented very healthy granulations; although at the bottom of it a considerable portion of denuded bone was to be seen for some time. No exfoliation occurred, and granulations sprang up from the lowest part. These cicatrized but slowly, and on the 15th November a very small and healthy wound remaining, the boy left the hospital, having been within its walls five weeks.

LXIX.

GUY'S HOSPITAL.

DIFFUSED SPURIOUS ANEURISM.

Oct. 21st, 1830, Thomas Noon, æt. 31, was admitted under Mr. Morgan, about eight weeks ago, for an aneurismal tumour of the left arm, the consequence of a punctured artery during bleeding, which had been done in the country a fortnight before. The limb was then greatly inflamed and swollen in the neighbourhood of the elbow, the tumour extending upwards, chiefly in front, as far as the tendons of the pectoralis major and latissimus dorsi, and bounded below by the fascia of the biceps. At the time he was bled, the patient states it was immediately evident that an artery had been wounded, by the great impetuosity of the current of blood, which was thrown out in jets to a considerable distance. By the application of firm pressure over the wound, the flow of blood was readily stopped. It, however, produced very considerable pain, and swell-

ing instantly took took place and spread up the arm. Leeches, in great numbers, were required to reduce the inflammation, and, since his admission, he has undergone general antiphlogistic treatment, by purgatives and saline remedies.

The present state of the disease is as follows: There is a large firm tumour diffused over the anterior surface of the upper arm, from an inch to two inches below the elbow-joint, upwards to the pectoral insertion. At the lower and inner part of this tumour, just above the internal condyle, there is less hardness than in the rest of its extent, and here, alone, pretty forcible arterial pulsation is distinctly felt by the finger, and a whizzing noise is plainly communicated to the ear, either by mediate or immediate auscultation. The swelling extends some distance outwards around the arm, but gradually disappears posteriorly. No distinct or circumscribed tumour exists in the front of the joint, nor any communication of the artery with the vein which was selected for the operation, the puncture of which healed perfectly in the usual time. The motions of the elbow-joint are of course completely suspended, and the fore-arm is kept slightly bent upon the upper. Pain is very trifling, but the patient constantly feels numbness and tingling, which often at periods amount to such, along the outer side of the fore-arm, and to the extremities of those fingers supplied by the median nerve, viz. on both sides of the thumb and two external fingers, and on the external side of the ring finger, whilst the inner side of this and both sides of the little finger, (receiving branches from the ulnar nerve) are quite free from either and possess perfect sensation, which is somewhat blunted in the former; for friction readily felt on the internal side of the ring finger, is with difficulty distinguished on its outer side. The dimensions of the swelling have scarcely enlarged latterly; the patient however, thinks, they are rather less than they have been. His health has not been much affected, and it is now good, and he has been for some time desirous that any operation, thought necessary, should be performed. This was done by Mr. Morgan in the following method. A tourniquet being firmly applied around the arm, an incision was made, with a double-edged scalpel, in front of the elbow-joint, about four inches in length, in order to expose the artery where it was wounded. An immense quantity of coagula, black, and having no appearance of organization, was found effused beneath the cellular tissue, by which the tumour was formed, and which was removed by the fingers. A *transverse* wound of the brachial artery was discovered, just above the division of the vessel, the edges of which were some distance apart, and had undergone slight ulceration. Two ligatures were applied on the artery, one above and the other below this opening, without much difficulty, as the trunk was not farther from the surface than ordinarily, when the coagulated blood was cleared away. The external wound was brought together by three sutures and strips of plaister, applied at a little distance from each other, and a light bread poultice was to be put on when the man should be in bed. A copious flow of venous blood followed the first incision, and the hand, which had previously been livid, became, at the close of the operation, remarkably blanched. The patient was disposed to faint at one time, but bore the whole well and most manfully.

Three hours after the operation the man was comfortable, and had recovered from its immediate effects. The numbness of the fingers had already ceased; his skin was cool, and pulse not more than 70.

Oct. 22d. Pain in left side of chest increased, in some measure, on inspiration, which the patient himself attributes to his being in the recumbent position, and inclining rather to that side. His countenance is somewhat distressed, and he got no sleep in the night; the limb, however, has been easy, and entirely free from tingling or numbness, and is so now, excepting some smarting of the wound; hand and fingers feel hot to the patient—they are of natural temperature, the whole fore-arm being enveloped in flannels, &c. The pulse is distinguishable at the wrist, and is synchronous with the opposite radial, though of

course very feeble—skin warm, and perspiring freely—pulse full, but soft, about 80—tongue rather yellowish, furred, and dry—has made water freely, but the bowels have not acted. Mr. Morgan ordered an aperient mixture, some of which was to be taken immediately, and repeated if necessary. Cat. lini. to the arm.

23d. The bowels were opened this morning early, after four doses of the medicine. He slept none last night, and has a continuance of pain in chest—no cough or expectoration. In other respects he is doing well, and is quite easy—no swelling or redness about the elbow.

24th. The pain of chest has left him—he has got six hours continued sleep in the night, and, in fact, is so much better, that we found him in the afternoon reading a book—limb in no pain, and feels of proper warmth—pulse 80—skin moist and temperate—bowels open. Straps were removed from wound yesterday, which looked well, although there was no union by the adhesive process.

25th. Doing well.

28th. Has continued well in every particular, and to-day took a mutton chop for dinner. The radial pulse on the sound side is firm and tolerably full—that on the opposite cannot now be distinguished, but was easily felt two days ago by Mr. Morgan, and, according to the patient's account, repeatedly by the dresser subsequently.

29th. Pulse at left wrist felt to-day feeble, but regular, and quite simultaneous with the heart's action.

31st. One ligature to-day came away.

Nov. 6th. Patient continues remarkably well. The pulse of the radial artery has gradually become more and more indistinct, and is now to be felt only at times, and then it is found to be excessively feeble—the remaining ligature has separated, and the wound, which has been hitherto poulticed, is ordered to be strapped. The wound has not contracted in size, but looks healthy. The tumefaction and hardness have subsided on the upper arm, which is now reduced to the same dimensions, and is equally soft with the other.

11th. He has sat up daily since our last account—is quite well in health, and very much gratified at the favourable result of his case. There is no enlargement left in the upper arm; the motions of the wrist and fingers are returned, and those of the elbow too in a limited degree; but there is every prospect that, in course of time, the latter joint will be rendered as useful as before, by exercising judiciously the natural motions of the limb.

17th. This day he was discharged from the hospital well.

The man has since appeared at the hospital, and the utility of the arm is nearly restored, some stiffness only of the elbow being perceptible. BETA.

MISCELLANIES.

LXX.

I. CASE OF ENCYSTED ABSCESS IN THE CENTRE OF THE SPINAL CORD. By J. HART, Esq.

THIS case is reported in the last volume of the Dublin Hospital Reports. It deserves a short notice, more as a matter of curiosity indeed, than of practical utility.

In the Summer of 1828, Mr. Hart assisted at the post-mortem examination of a child, at which Mr. Crampton was present. "The child had been for about a month suffering from irritation of the bowels, which the parents supposed to be owing to dentition, when a lateral curvature of the lumbar portion of the spine to the right side was taken notice of, accompanied with a spasmodic twitching of the right leg and thigh. Soon after this occurrence, the child was affected with convulsions, which became more frequent, and were shortly accompanied with well marked symptoms of hydrocephalus, which, notwithstanding very active treatment, proved rapidly fatal. On examination

of the body the following appearances were found. The head was enlarged, the sagittal and coronal sutures open, the pia mater every where red from increased vascularity; there was a considerable effusion of straw-coloured serum on the surface of the brain, in the ventricles, which were distended, and in the spinal canal. In fact, there were the ordinary appearances so well known to present themselves after death from hydrocephalus.

We next examined the spinal canal, when we found a globular sac, of about the size of a hazel nut, filled with an aqueous fluid, which pressed on the nerves of the cauda equina of the right side, accounting for the spasmodic twitchings of the muscles of the limb.

Observing that the spinal cord appeared of unusual thickness, an incision was made into it, from which some *thick purulent matter* flowed out; on further examination, we found that this matter was contained in a cyst, which occupied the very centre of the spinal cord: this cyst was of an oblong form, extending from the first to the twelfth of the dorsal vertebræ, and was terminated by an obtuse extremity both above and below. The diameter of this tubular cyst was about four lines, its parietes were a line in thickness, and so solid as not to collapse when the contained fluid was discharged; so completely did it occupy the centre of the spinal cord, that the medullary substance formed a tube of equal thickness on every side of it. The absence of paralysis in this case is remarkable."

The preparation is deposited in the Park Street Museum, and a drawing of a section of the cord accompanies the case.

II. OBSTINATE PSORIASIS SUCCESSFULLY TREATED.

DR. WEST has related a case of this kind in the last volume of the Dublin Hospital reports, which is worth recording.

Case. A young man, of robust constitution, was attacked by psoriasis, which first appeared on the lower part of the back, then extended to the thighs and legs, and at last covered the whole body, with the exception of the face and hands. Plummer's pill and a mixture of the tar, citrine, and sulphur ointments were prescribed, then vapour and sulphur baths, and the internal exhibition of the liquor arsenicalis; in short, a variety of treatment was employed without effect. Having allowed a short interval of repose from all treatment, in order that the patient might regain his strength, he was put on the following plan. He was confined to bed, placed on a cooling and scanty vegetable diet, bled several times, and his bowels were kept open by a purgative electuary consisting of cream of tartar and electuary of scammony. The good effects of the treatment soon became apparent; the redness diminished rapidly, the formation of scales decreased in the same proportion, and in less than five weeks he was almost freed from the disease. There has been no relapse, nor is there any mark or discoloration of the skin.

III. SINGLETON'S GOLDEN OINTMENT, AND AN IMPROVED RED PRECIPITATE OINTMENT.

MR. THOMAS CLARK has published in No. XII. of the Glasgow Journal an analysis of Singleton's Golden Ointment, which differs considerably from that of former chemists. Mr. Gray, Mr. Rennie, and Dr. Paris, had stated it to consist of lard and orpiment, sulphuret of arsenic. From experiments, for the details of which we refer to our contemporary, Mr. Clark comes to the conclusion that an ounce of the ointment consists of one drachm of the red precipitate, and seven drachms of butter. The said ounce is sold at *one guinea*, exclusive of the duty, and costs just *one penny;* a good illustration, as Mr. C. remarks, of the modern transmutation of metals. After some sprightly remarks on this and the red precipitate ointment of the Pharmacopœia, Mr. C. proposes a new formula for the latter. Here it is.

Red precipitate, prepared by nitric acid; good yellow wax, of each a drachm; prepared lard, an ounce.

Rub the red precipitate till it become orange. Then mix it with a little of the lard. Mix also the remainder of the lard with the wax, and melt them together. When the

latter mixture is removed from the fire and has begun to harden, add to it the former mixture. Stir the whole together till it cool.

IV. MEDICAL BOTANY. By J. STEVENSON, M. D. and JAMES MORSS CHURCHILL, F. L. S. &c.

WE have much pleasure in informing our readers that this valuable work is now completed. On the necessity of the study of medical botany we need say nothing; common sense points it out, and, what is yet more likely to stimulate the lagging industry of the young aspirant to Æsculapian fame, the corporate bodies require it. Of the modern works upon the subject we believe that the present is by far the best. We have, on a former occasion, pointed out the general plan adopted by the authors, and we need not at present go over the ground again. Neither need we pretend to give a formal notice of what is neither susceptible of review, nor fit material for analysis. Such works do not come within the scope of a periodical journal, and we must therefore content ourselves with expressing our approbation of the manner in which it has been executed and the objects for which it was undertaken. It will form a valuable acquisition to every medical student, and an useful and elegant addition to every medical library.

LXXI.

THE LATE DR. NUTTALL.

WE are glad to see that a subscription has been set on foot for the widow and orphans of the late Dr. Nuttall, by their zealous friend Mr. Tucker. The editor of this Journal having attended Mrs. Nuttall through a long, dangerous, and nearly fatal illness, from which she is now recovering only to mourn over five helpless, but lovely children, can testify conscientiously to the truth of the following passage in Mr. Tuckers's letter, published recently in the Lancet.

"My former letter will partly serve to prove this last assertion. I could add many others of a similar nature, indeed I could fill a small volume with anecdotes of his charitable and other virtuous acts, which I have witnessed and heard of. Scarcely a day passes but I see some poor creature who has benefitted by his kindness or professional advice, and who laments with genuine tears his departure from this world. Some may think Dr. Nuttall was indiscriminate in his givings. Not so; no man in London ever witnessed more real misery than he—no man's feelings were ever more tried. He has seen disease, starvation, and every misery, combined in one family; he has visited such at night in the severest weather, all huddled together in a cold desolate room, without a bed to lie upon, a blanket to cover them, or fire to warm their shivering frames. He has felt as every Christian should feel—he has acted as every Christian should act—he has placed fire on their hearths, food in their mouths, and from the dispensary sent medicine to restore the sick member to health. In many cases he has paid for medicines, when delay would have proved dangerous. Who is the man that could condemn him—who is the man that would not applaud him?"

Books of subscriptions are open at the banks of Messrs. Hammersley, Greenwood, and Co. Pall Mall—and also at the Lancet office—Callow and Wilson's—Burgess and Hill—Highley, Fleetstreet—and Anderson, Smithfield. We agree with Mr. Tucker, that small sums, on such occasions, would perhaps be better than large, as a far greater number would thus be induced to contribute their mite.

SUBSCRIPTIONS.

DR. J. JOHNSON ..... 1*l.* 1*s.* 0*d.*

BIBLIOGRAPHICAL RECORD;

1. An Address, introductory to a Course of Lectures on the Principles and Practice of Physic, delivered on Wednesday, 23d June, 1830, dedicated to the Members of the City of London Medical and Chirurgical Society. By JAMES BAKER, Surgeon.

2. De Tabulis Mortuorum, Vivorum, et Nascientium; necnon de Numero et Proportione diversorum Morborum, &c. A. GULIELMO HARTY, M.B. Dublini, 1830.

☞ *A very ably executed thesis.*

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3. Transactions of the medical and Physical Society of Calcutta. Volume the Fourth. Octavo, pp. 445, with plates, Calcutta, 1829.

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4. A Demonstration of the Nerves of the Human Body, consisting of four Parts.—Part 1. The Cervical and Thoracic Portions of the Sympathetic, and the Nerves of the Thoracic Viscera—Part 2. The Lumbar and several Portions of the Sympathetic, and the Nerves of the Abdominal Viscera—Part 3. The Cerebral Nerves—Part 4. The Spinal Nerves. By JOSEPH SWAN. Part 1, two Guineas. Folio. Longman's, London, 1830.

☞ *This is a magnificent Work, unequalled by any English plates for accuracy, and unrivalled for boldness and clearness of delineation. Mr. Swan deserves every encouragement, and we trust that the more affluent members of the profession, and the various Medical and Book Societies will extend their patronage to the undertaking. We wish the indefatigable author every success.*

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5. The Philosophy of Sleep. By ROBERT MACNISH, Author of the Anatomy of Drunkenness, &c. Duodecimo, pp. 268. Glasgow, 1830.

☞ *Mr. Macnish is very favourably known for his Anatomy of Drunkenness, a little work which has received the commendation of very able men. The present volume does no discredit to Mr. M. and perhaps, we may be enabled to make an extract or two from its pages.*

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6. Elements of Chemistry. By ANDREW FYFE, M.D. F.R.S.E. &c. Second Edition, comprehending all the recent Discoveries. Octavo, pp. 1061. Edinb. Adam Black, 1830.

☞ *It is unnecessary for us to dwell on the merits of this valuable work; they have been stamped by the universal approbation of all who have perused it. To the student in chemistry, and, we may add, in medicine, it will prove an acquisition of the highest value.*

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7. A Practical Treatise on the Diseases of the Eye. By WILLIAM MACKENZIE, Lecturer on the Eye in the University of Glasgow, &c. Octavo, pp. 861. Longman's, London, 1830.

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8. The Anatomy of the Human Body, illustrated by 158 Plates, taken partly from Nature, partly from the most celebrated Authors. By ANDREW FYFE, Fellow of the Royal College of Surgeons of Edinburgh. Quarto. Edinburgh, 1830.

Also: Descriptive Letter-press of the same, in 1 vol. 8vo. pp. 233.

☞ *The approbation of the profession has long stamped Fyfe's Anatomy as a valued and valuable work. In the volumes before us, the Plates are separate from the descriptive portion of the work, and are accompanied by a book of Tables, pointing out the parts delineated in the Plates. They are well worth the attention of students. Whether there is likewise a new edition of the Descriptive Anatomy we cannot say, as the able author has not sent it with the rest.*

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9. A Treatise on Auscultation, illustrated by Cases and Dissections. By ROBERT SPITTAL, late Physician's Assistant, and now House-surgeon of the Royal Infirmary, Ed. Octavo, pp. 280. Edinb. and London, November, 1830. *Thirteen Plates.*

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10. Elements of the Pathology and Practice of Physic. By J. MACKINTOSH, M.D. &c. Volume the Second, 1830.

☞ *This finishes the Work, which now presents a respectable compendium of practical medicine.*

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11. Recherches, Experimentales sur le Sang, considéré à l'Etat sain, faites pour determiner les Modifications auxquelles est sujette dans l'Economie, la Composition de cette Humeur, et apprecier les Phenomènes physiologiques qui s'y rapportent. Mémoire presentée à l'Institut, Academie des Sciences, en 1828. Par PROSPER SYLVAIN DENIS, M.D. &c.

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12. Elements of Surgery. By ROBERT LISTON, Fellow of the Royal College of Surgeons in London and Edinburgh, &c. Part 1. 8vo. pp. 318. London and Edinburgh, 1831.

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13. Pathological Observations; Part 3. On Typhoid, Inflammatory, and Symptomatic Fevers; Small-pox after Vaccination, Gout, Rheumatism, Dropsy, Delirium Tremens, and Pemphigus, &c.; with an Appendix of Cases, illustrating the Nature and Treatment of Diseases, more especially in

the occasional Substitution of Millefoil and Dandelion for Foxglove, Prussic Acid, Mercury, Colchium, &c. By WILLIAM STOKER, M.D. &c. Octavo, pp. 133. Dublin, 1830.

14. Essays on the Medical Institutions of Naples, No. 1. By Dr. ROCHE, of Philadelphia. Octavo, pp. 40.

☞ *A very talented and erudite brochure. When finished, we shall not fail to notice the work.*

15. Engravings of the Bones, Arteries, and Nerves, copied from the Works of Scarpa, Soemmering, &c. By EDWARD MITCHELL, Engraver, with explanatory Letter-press, by Dr. KNOX. Second Ed. Edinburgh, 1830.

☞ *We have noticed this highly valuable and meritorious performance in our present Number.*

16. Lectures on Anatomy, interspersed with practical Remarks; Vol. II. By BRANSBY B. COOPER, F.R.S. Surgeon of Guy's Hospital, Lecturer on Anatomy, &c. Large 8vo. 2 Plates, pp. 308. Highley, 1830.

☞ *We have noticed the first volume of this valuable Work on a former occasion. We shall advert to the present in the body of this Journal.*

17. Bethlem Hospital. Minutes of Evidence taken by the Committee appointed to inquire into the Charges preferred against Dr. WRIGHT, with his Answer. By Dr. WRIGHT. 8vo. sewed, 1830.

☞ *We have given an opinion in another place on this inquiry.*

18. Illustrations of Mr. Cooper's Surgical Dictionary; published monthly, each Fasciculus containing from four to seven Lithographic Plates, with Letter-press Descriptions, and References to the Text. Octavo, stitched, price Two Shillings each Part; Parts 1, 2, 3. Longman's 1830.

19. Science without a Head; or the Royal Society dissected. By One of the 687 F.R.S's. 8vo, pp. 122. Nov. 1830.

☞ *A keen dissection.*

20. A new Mode of ventilating Hospitals, Ships, Prisons, &c. being an efficient Method of destroying Contagion, &c. By GEORGE HAWTHORNE, M.D. Octavo, pp. 84. 1830.

21. Medicine no Mystery. Second Edition, Nov. 1830. By JOHN MORRISON, M.D.

22. Inquiries concerning the Intellectual Powers, and the investigation of Truth. By JOHN ABERCROMBIE, M.D. Octavo, pp. 435. London and Edinb. December, 1830.

23. Cases illustrating the Efficacy of various Medicines administered by Inhalation, in Pulmonary Consumption, in certain Morbid States of the Trachea and Bronchial Tubes, attended with Cough, and in Asthma. By Sir CHARLES SCUDAMORE, M.D. &c. Octavo, pp. 113, Nov. 1830.

24. Medical Botany, &c. By JOHN STEPHENSON, M.D. and JAMES MORSS CHURCHILL, F.L.S. &c. Various Numbers.

☞ *For a notice of this useful publication, we refer to the Periscope of the present Number.*

25. A System of Operative Surgery, containing a Description of the most approved Plans of performing the different Operations in Surgery on the Dead Body, with Remarks on their Anatomy, and accompanied by practical Observations; being principally designed for the Use of Students in Surgery. By W. HARGRAVE, A.M.M.B.C.D. Mem. of the Royal College of Surgeons in Ireland, Lecturer on Anatomy, Physiology, and Operative Surgery, &c. Octavo, pp. 530, 1831. Price Nine Shillings.

26. Anatomical Demonstrations; or Colossal Illustrations of Human Anatomy. By Professor SEERIG. Translated from the German, Part I. London, published by A. Schloss, Foreign Bookseller, 44, Southampton Buildings, Chancery Lane, 1831. Part I, containing 4 Plates, price 8s. 6d. each Part, or 12s. coloured.

☞ *These are capital Plates, and have our unqualified approbation. Their accuracy is unimpeachable, their execution admirable, and we think that Mr. Schloss is deserving of the highest praise, and, what is more to the purpose, patronage, in entering on such an undertaking. Among the subscribers to this beautiful and useful work, we observe the principal anatomical teachers, Sir Astley Cooper, and Mr. Brodie, names which must carry great weight and influence along with them. On the whole, we cordially recommend the Work to our professional brethren.*

THE

Medico-Chirurgical Review,

No. XXVIII.

JANUARY 1, TO APRIL 1, 1831.

I.

INQUIRIES CONCERNING THE INTELLECTUAL POWERS AND THE INVESTIGATION OF TRUTH. By *John Abercrombie*, M. D. &c. Octavo, pp. 435. Waugh and Innes. London, 1830.

IT has been usual to consider the thinking principle as a very compound being; consisting of parts perfectly distinct, and executing functions perfectly different. It is certainly true that we can perceive the qualities of external objects—that we can compare these qualities with each other—that we can decide upon their resemblances, or dissimilarities—that we can associate these judgments into groups—combine them into connected trains of reasoning—recall, at pleasure, ideas and combinations of ideas formed long before, and fancy perceptions and associations, which never had any object. These are mental operations, which are hourly performed, and of which we feel undoubtingly conscious. But it appears more than questionable, whether these few facts entitle a division of the thinking principle into distinct parts and separate properties.

The essence of mind we know nothing of, the exercise of mind we cannot explain, and its operations are frequently as mysterious as its nature. When a material object is brought within the sphere of our senses, by examining it attentively we become acquainted with its colour, consistence, form, and size. We are said to perceive these qualities, and the knowledge, which is thus acquired, is said to consist of simple perceptions. But, after obtaining these perceptions of external objects by this exercise of the senses, the mind proceeds to operate upon these materials in various ways. She reduces them into various forms—she devotes them to various purposes—she recalls before her each perception individually—abstracting her attention from every other perception, she directs herself exclusively to the examination of one—she decides upon, or forms a judgment of its nature—she compares the judgment which she has formed of one perception with the judgment to which she has arrived respecting another, and, by reasoning on the qualities of both in connexion, she forms an opinion, not merely of their abstract, but of their relative properties—she then classifies these perceptions according to their qualities, and estimates them according to their resemblances—she generalizes upon the qualities of objects as yet unseen, by her knowledge of the perceptions of those which she conceives to be either similar, or opposite—and, last of all, she can imagine a thousand qualities and combinations of matter, which have no existence, and of which she has therefore never had

any knowledge, but which, from her extensive knowledge of the qualities and combinations of matter which do exist, and which she has perceived, she can invest with similar but modified properties. Thus, then, do metaphysicians say, is it evident that we have perception, attention, memory, recollection, reflection, abstraction, judgment, reason, conception, causation, imagination, and many other mental functions.

Still, however, there is strong reason for believing, that these are not so many distinct and different functions, or properties of mind, but the varied and modified workings of an indivisible, unique and unmembered principle; and that any difference, which may appear between them, depends more upon the degree in which mind is exercised in each, than upon any essential difference in their original constitution. When we view a portrait, we cannot confine the exercise of mind, which sight of such an object calls forth, to a mere act of perception. We cannot avoid forming some opinion of the features of the figure, of their size, proportion, or symmetry. If the nose be large, or the eye small, or the colours vivid, or the hair grey, we cannot refrain from considering them as such the moment they are seen. Our simple perception of the object and this opinion of it appear to be almost, if not altogether, simultaneously formed; and, although by more minute examination we may criticise the piece with more exactness, and evince much greater depth of mind in our remarks, still it is only by more minute perception that more delicate judgments are formed, and to the taste of an artist, which education has developed and experience has refined, the detection of a blemish, or the discovery of a beauty is only to be seen to be decided on.

Although general authority is unfavourable to this view, yet we have some most distinguished metaphysicians who strongly favour it. Dugald Stewart has done much to simplify the science of mind; Dr. Browne has done more, and Mr. Mill, in his late admirable "Analysis of the Human Mind,"* has cheered us with the hope, that the period is not distant, when the subtleties of Descartes and Reid shall be consigned to the same oblivion with the ancient categories and absurd distinctions of Aristotle.

For the sake of perspicuity and more convenient expression, do we believe, has mind been chopped down by many writers into such fractional divisions; but, in consequence of our strong bias to convert mere names after lengthened use into actual entities, this metaphysical dissection has introduced more difficulty and disorder into the study of mind, than can be easily imagined by any, save those who have been doomed to encounter them. Mason Good's Nosology is superior, both in euphony and intelligibility, to some catalogues of mental functions which we have seen; and, although perhaps they scarcely equalled it in the number, they certainly were not inferior to it in the minuteness of their subdivisions. If any advantage can be gained by attributing to mind distinct functions, and by distinguishing these functions by specific names, the arrangement of all the mental faculties into perception, memory, judgment, and imagination is the best. Sensation is only a form of perception, attention is merely the direction of perception to a specific object, abstraction is a specific application of attention, conception is a renew-

* See the Westminster Review for October, 1830.

ed or recollected perception, recollection is a form of memory or memory in exercise, causation is a function of judgment, and reflection is a conjoint exercise of judgment and memory. Unless, therefore, we admit the doctrine of intuitive ideas, which is a metaphysical paradox unworthy of the great men by whom it has been advocated, all our knowledge is derived from the exercise of these four mental powers, or rather from these four varieties of mental exercise—perception, memory, judgment, and imagination; and the confused and confounding jargon of the schools, which describes the human mind as infinitely more complicated than the most mysterious piece of mechanism which ever ingenuity invented, should be exposed by every friend to plain and useful knowledge.

But, while we maintain the simplicity of mind, and contend that metaphysics is indebted for the repulsive aspect, which it presents to many minds, to our unlogical and unmeaning mode of studying it, we wish it to be understood that we are only referring to the operations, or effects of the thinking principle, not to the thinking principle itself. The thinking principle, is not an object of study in the abstract, because in the abstract we can know no more of it, than we do of the independent, invisible spirit, from which it emanates and by which it exists. We are acquainted with a few of its properties, we know a few of the principles according to which it works, we can arrange some of its operations, and we can invest, with an imposing garb of scientific nomenclature, this meagre alphabetical metaphysics. But we are all this time drudging among the outworks; we are learned only in signs and in symptoms. The thinking principle is as deeply immersed as ever in inscrutible profundity, and the imperfect information which we possess on the whole subject of mind (excluding its simple operations) amounts to little more than a scholastic classification of abstruse terms, and a profound description of superficial phenomena. Matter is known to us only by its properties, and a few even of these properties are sufficiently understood; and is it to be conceived that matter, which is subject to every sense, which comes into contact with our every mean of knowledge, which is palpable to the touch, visible to the eye, and accessible by every avenue of thought, should still remain unknown and as mysterious as ever, and yet that mind, which is immediately cognizable by no sense but that of consciousness, which can be seen only through its works, and even then as through a glass darkly, and whose absence can be predicated only by finding no traces of its operation—is it to be conceived that this being is to be denied an independent life, because we cannot subject it to the rule and plummet, bring it within the field of our microscope, weigh it in our scales, or measure it by our yard-stick! What we call mind, has, probably, no connexion with what we call matter in any other district of the universe, than on the present globe—at least there is nothing known contrary to such a supposition—and we do know that in other parts of the universe, what we call mind exists and exercises its functions apart from and independent of matter. The present connexion of matter with mind is therefore, as far as we know, the only instance in which they are united and, exclusive of every other proof, this is one reason for believing that the operation of mind and mind itself are just as independent of matter as matter can possibly be of mind. When it is said, then, that mind is immaterial

in construction, incomprehensible in essence, indpendent of matter in its existence, and in being after the matter, with which it has been for a time in connexion, is dissolved, we only assert what analogy teaches, what the distinctive peculiarities of mind and matter warrant, what scientific observation infers, and what revelation confirms. "Of all the truths we know," says Mr. Stewart, "the existence of mind is the most certain. Even the system of Berkely, concerning the non-existence of matter, is far more conceivable than that nothing but matter exists in the universe." We have the evidence of consciousness for the existence of the one, but only that of sense for the being of the other; and if the thousand derangements, to which our external senses are obnoxious, be considered, the assurance which we possess of the existence of mind is much less equivocal, and may be more surely depended on, than any which mere sense can furnish to prove that there is any other creature than mind in the universe.

The stumbling-block of most materialists consists in the intimate connexion which subsists between mind and matter in our present state of being. They cannot, or they will not see that this connexion, although intimate, is unessential. The very intimacy of this connexion is confounded with identity of being, with oneness of substance, of property and of life. Because spiritualists admit that the brain is the organ, through which mind manifests itself, materialists insist that mind is a secretion of the brain. Because those allow that soundness of brain is necessary for sanity of mind, and that disease of the former is followed by disorder of the latter, these argue that mind cannot operate without brain, that organization is indispensible to thought! This is a sad shipwreck of all reasoning—a melancholy abandonment of legitimate induction. Dr. Abercrombie's remarks on this metaphysical monstrosity are excellent.

"The brain, it is true, is the centre of that influence on which depend sensation and motion. There is a remarkable connexion between this organ and the manifestations of mind; and by various diseases of the brain these manifestations are often modified, impaired, or suspended. We shall afterwards see that these results are very far from being uniform; but even if they were uniform, the facts would warrant no other conclusion than that the brain is the organ of communication between the mind and the external world. When the materialist advances a single step beyond this, he plunges at once into conclusions which are entirely gratuitous and unwarranted. We rest nothing more upon this argument, than that these conclusions are unwarranted; but we might go farther than this, and contend, that the presumption is clearly on the other side, when we consider the broad and obvious distinction which exists between the peculiar phenomena of mind, and those functions which are exercised through the means of bodily organization. They do not admit of being brought into comparison, and have nothing in common. The most exquisite of our bodily senses are entirely dependent for their exercise upon impressions from external things. We see not without the presence both of light and a body reflecting it; and if we could suppose light to be annihilated, though the eye were to retain its perfect condition, sight would be extinguished. But mind owns no such dependence on external things, except in the origin of its knowledge in regard to them. When this knowledge has once been acquired, it is retained and recalled at pleasure; and mind exercises its various functions without any dependence upon impressions from the external world. That which has long ceased to exist is still distinctly before it; or is recalled, after having been long forgotten, in a manner even still more wonderful; and scenes, deeds, or beings, which never existed are called up in long and harmonious succession, invested with all the characters of truth, and all the vividness of present existence. The mind remembers, conceives, combines, and reasons; it loves, and fears, and hopes, in the total ab-

sence of any impression from without, that can influence, in the smallest degree, these emotions; and we have the fullest conviction that it would continue to exercise the same functions in undiminished activity, though all material things were at once annihilated.

This argument, indeed, may be considered as only negative, but this is all that the subject admits of. For when we endeavour to speculate directly on the essence of mind, we are immediately lost in perplexity, in consequence of our total ignorance of the subject, and the use of terms borrowed from analogies with material things. Hence the unsatisfactory nature of every physiological or metaphysical argument respecting the essence of mind, arising entirely from the attempt to reason the subject in a manner of which it is not susceptible. It admits not of any ordinary process of logic, for the facts on which it rests are the objects of consciousness only; and the argument must consist in an appeal to the consciousness of every man, that he feels a power within totally distinct from any function of the body. What other conception than this can he form of that power by which he recalls the past, and provides for the future; by which he ranges uncontrolled from world to world, and from system to system; surveys the works of all-creating power, and rises to the contemplation of the eternal cause? To what function of matter shall he liken that principle, by which he loves and fears, and joys and sorrows; by which he is elevated with hope, excited by enthusiasm, or sunk in the horrors of despair? These changes also he feels, in many instances, to be equally independent of impressions from without, and of the condition of his bodily frame. In the most peaceful state of every corporeal function, passion, remorse, or anguish, may rage within; and, while the body is racked by the most frightful diseases, the mind may repose in tranquillity and hope. He is taught by physiology, that every part of his body is in a constant state of change, and that, within a certain period, every particle of it is renewed. But, amid these changes, he feels that the being whom he calls himself remains essentially the same. In particular, his remembrance of the occurrences of his early days, he feels to be totally inconsistent with the idea of an impression made upon a material organ, except he has recourse to the absurdity of supposing that one series of particles, as they departed, transferred the picture to those which came to occupy their room." 34.

"We know nothing of the nature or the essence of mind; but whatever may be its essence, and whatever may be the nature and extent of that mysterious connexion which the Deity has established between it and our bodily organization, these points have no reference whatever to the great question of its future existence. This momentous truth rests on a species of evidence altogether different, which addresses itself to the moral constitution of man. It is found in those principles of his nature by which he feels upon his spirit the awe of a God, and looks forward to the future with anxiety or with hope;—by which he knows to distinguish truth from falsehood, and evil from good, and has forced upon him the conviction that he is a moral and responsible being. This is the power of conscience, that monitor within, which raises its voice in the breast of every man, a witness for his Creator. He who resigns himself to its guidance, and he who repels its warnings, are both compelled to acknowledge its power; and, whether the good man rejoices in the prospect of immortality, or the victim of remorse withers beneath an influence unseen by human eye, and shrinks from the anticipation of a reckoning to come, each has forced upon him a conviction, such as argument never gave, that the being which is essentially himself is distinct from any function of the body, and will survive in undiminished vigour when the body shall have fallen into decay." 37.

"There is thus in the consciousness of every man a deep impression of continued existence. The casuist may reason against it, till he bewilder himself in his own sophistries; but a voice within gives the lie to his vain speculations, and pleads with authority for a life which is to come. The sincere and humble inquirer cherishes the impression, while he seeks for farther light on a subject so momentous; and he thus receives with absolute conviction the truth which beems upon him from the revelation of God,—that the mysterious part of his being which thinks, and wills, and reasons, shall indeed survive the wreck of its mortal tenement, and is destined for immortality." 38.

Whether we regard mind as divisible into parts, or indivisibly entire, its first exercise, as has been already stated, in acquiring knowledge of the external world, is perceptive, and the first fruits of that exercise are simple

ideas. But as these ideas are obtained through the senses, any derangement in the corporeal function of sensation must produce a corresponding aberration in the mental faculty. Dr. Falconer relates the case of a man, whose sensation was so morbid, that cold bodies felt to him as though they were hot. A patient mentioned by Baron Larrey, on recovering from amaurosis, saw men as giants and all objects greatly magnified. We are acquainted with a gentleman who, on recovering from fever, detected the taste of colchicum in every wine which was offered to him; and the author gives us the particulars of a patient, who, while sitting alone in his drawing-room during twilight, the door of his room being half open—"saw distinctly a female figure, wrapped in a mantle, and the face concealed by a large black bonnet. She seemed to advance a few steps towards him, and then stop." He was always, however, able to convince himself of the illusion, by observing that he could see through the figure, so as to distinguish the lock of the door and other objects which lay behind it. Sir Walter Scott's late work on Demonology and Witchcraft gives many very interresting instances of a similar kind.

But, although all the senses may be perfectly healthy, they often require assistance and correction from each other, in order to convey faithful ideas of external objects to the mind; and the success, with which one sense can be made to perform the duties of another by frequent and careful application, is strikingly exemplified by many curious anecdotes. Mr. Saunderson, the blind mathematician, could by his sense of touch outstrip the most experienced virtuoso, in detecting counterfeit from genuine Roman medals. Dr. Moyse, the celebrated blind philosopher, could distinguish a black from any other coloured coat, by the peculiarity of its smell. The cases of two blind men are given by the author, who were such excellent judges of horses, that they could detect defects which had escaped the notice of more gifted, but less acute observers. One of these, in giving his opinion of a horse, declared him to be blind from the peculiarly cautious manner in which he put his feet to the ground; and the other pronounced a horse blind of one eye, by perceiving that it was colder than the other. We have heard it positively asserted of a blind man, that he could tell the colour of any cow in a large flock, if he heard her roar; and a story, little short of this in eccentricity, has been lately published, in which a gentleman, who had lost every sense but that of touch in one cheek, kept up communication with his family, by tracing characters on the part which retained its sensation.

"Much ingenuity has been bestowed upon attempts to explain, how, with two eyes, we see only one object; and why that object is seen erect, when we know that the image on the retina is inverted. All that need be said upon the subject, and all that can properly be said, appears to be, that such is the constitution of our nervous system. It is on the same principle, that by the sense of touch, in which may be concerned a thousand or ten thousand distinct points of contact, we receive the impression of only one body; or, what perhaps may appear a more strictly analogous case, we receive the impression of but one body, though we grasp the substance with two hands, or with ten distinct fingers. For the healthy perception in both these cases, however, a certain arrangement is required, which we may call the natural harmony of the nervous system; and, when this harmony is

disturbed, the result is remarkably altered. Thus, squinting produces the vision of a double image, because the images fall upon what we may call unharmonizing points of the retina; and the same principle may be illustrated, in a very curious manner, by a simple experiment with the sense of touch. If a small round body, such as a pea, be laid upon the palm of the one hand, and rolled about between the first and second fingers of the other, in their natural position, one pea only is felt; but, if the fingers are crossed, so that the pea is rolled between the opposite surfaces of the two fingers, a most distinct impression of two peas is conveyed." 55.

Some have attempted to account for this singular phenomenon in vision on the principle of habit, forgetting that habits are only formed in the course of time and after much attention, and that when formed they merely consist of a facility of action, acquired by its frequent repetition. Others have gone so far as to say that inverted objects are at first seen as they are represented, and that experience ultimately corrects what was at first an error. Descartes accounts for it by saying, that the notice, which the mind takes of the object seen, depends not on the image painted upon the retina, but on the situation of that portion of brain from which the filaments of the optic nerve arise. Mr. Molyneux makes the whole matter very easy by asserting, that it is not the eye which sees, but the soul, and that it is to investigate the essence of a subject, which we know nothing of, to enquire how the soul sees inverted images erect; and Mr. C. Bell treats the subject quite as lightly, since, according to him, the terms above and below have no relation to the image in the bottom of the eye, but to the position of our bodies and surrounding objects.

We have collected these different views on this difficult question, for the sake of shewing how easily some points of a most interesting nature are passed over, even by celebrated writers, and how strongly we are inclined to make any reply to a question pass for its solution, rather than honestly acknowledge we know nothing at all about it. None of the ingenious authors, whom we have mentioned, could have been himself satisfied with his own solution, and however we may cover and conceal the difficulty in such unintelligible jargon, as soul-seeing and brain-seeing, it must be evident to any candid inquirer that there not only is a difficulty in the subject, but that this difficulty still remains unexplained.

How with two eyes we see objects singly is also a matter of considerable obscurity. Descartes, who was never backward in grappling with ultimate facts, and reducing them to reason, supposed that the nervous filaments, which compose the retina in both eyes, are homologous, that each filament has a corresponding part of the brain in each hemisphere, and that when any impression is made upon these filaments, the corresponding portions of brain only are affected at the same instant. Sir Isaac Newton ascribed single vision with double images to decussation of the optic nerves behind the sphenoid bone, adopting the opinion of Galen and the old anatomists. Gassendi and M. Du Tour thought that the mind attended to one image only at once; Dr. Reid refers the explanation to an original conformation of the eye and mind; and others have maintained that originally all objects making two pictures—one in each eye—is imagined to be double, but that by degrees we find, when corresponding parts of both retinæ are impressed, both images represent but one object. Mr. Cheselden gives the case of a gentleman, who had one of his eyes distorted from a blow inflicted on the head, and who,

for a long time after the accident, saw all objects double. By experience, however, this deception was gradually rectified, the most familiar objects at first began to appear single, and, although the obliquity of the injured organ still continued, every thing was ultimately seen without presenting a duplicate aspect.

The knowledge, which we obtain through the external senses, is extremely limited. Were one confined to this single source of information, our attainments in knowledge could never rise to any distinguished degree of excellence. But, by storing up the ideas which have been obtained through the senses, by combining, comparing, classing and deducing inferences from them, a new fund of thought is established, which is not much inferior to the former in productiveness, and at advanced life is the principal and often the only fountain from which knowledge is acquired. Metaphysicians have, therefore, divided our ideas into such as are procured from sensation and those which are derived from reflection—into simple and complex ideas, ideas original and secondary. The first comprehend all such as are communicated to the mind through the medium of our senses, whether they be immediately perceived by personal observation, or mediately received through the testimony of others. The second comprehend all ideas that arise from memory, reflection, abstraction, consciousness, reason, imagination and other exercises of mind, which have less immediate direction to external objects than to their images, which sensation has already furnished. The number, nature and even the existence of the latter class of ideas depend upon the perfection and variety of the former. The one class form the foundation, the other the superstructure of all human knowledge.

The Doctor arranges, under the three following heads, all the ideas which we derive from reflection :—

"I. A knowledge of the mental processes, and the laws and relations by which they are regulated;—a knowledge, for example, of the laws and facts relating to memory, conception, imagination and judgment. These will be more particularly referred to in a subsequent part of our inquiry. In the same manner we acquire our knowledge of those which have been called the active and moral powers, as love, hope, fear, joy, gratitude, &c.

II. Certain notions arising out of the exercise of the mental processes, in reference to the successions and relations of things;—our notion, for example, of time, arising out of memory and consciousness;—our notion of cause,—of motion,—number—duration—extension or space. From simple perception we seem to acquire a knowledge of external things as existing only at the moment; and from simple consciousness a knowledge of a mental impression as existing only at the moment.—Our notions of the succession of things, as implying time and motion, require the exercise of consciousness and memory; and our notions of cause, and the various other relations of things to each other, require both memory and comparison. To the same head, in reference to another department of these faculties, belong our notions of truth and falsehood,—right and wrong. These result from a certain exercise of mind, aided by that remarkable principle in our constitution, which commonly receives the name of conscience.

III. With this exercise of the mental functions, there spring up in the mind certain convictions, or intuitive and instinctive principles of belief. They are the immediate result of a certain exercise of the understanding, but are not referable to any process of induction or chain of reasoning, and can be considered only as an original and fundamental part of our constitution. This is a subject of great and extensive importance, and the articles of belief which are referable to it, are chiefly the following :—

(1.) A conviction of our own existence as sentient and thinking beings, and of mind as something distinct from the functions of the body.

(2.) A confidence in the evidence of our senses in regard to the existence and properties of external things; or a conviction that they have a real existence independent of our sensations.

(3.) A confidence in our own mental processes;—that facts, for example, which are suggested to us by our memory, really occurred.

(4.) A belief in our personal identity, derived from the combined operation of consciousness and memory; or a remembrance of past mental feelings, and a comparison of them with present mental feelings, as belonging to the same sentient being.

(5.) A conviction that every event must have a cause, and a cause adequate to the effect.

(6.) A confidence in the uniformity of the operations of nature; or that the same cause, acting in the same manner, will always be followed by the same effect." 70

We apprehend that the Doctor has arranged within his third head some ideas, which cannot be considered as original and fundamental parts of our constitution, but are strictly referable to a chain of reasoning, however fine or imperceptible. For instance, how do we gain confidence in the uniformity of nature's operations? Fundamental parts of our constitution, or more properly speaking instincts, should be as complete in childhood as at a more advanced age, yet the infant mind, which has no experience of the laws of nature, and no knowledge of the properties of matter, can be certain of neither, and cannot safely predicate any thing of either. It is a law of nature that a stone, when thrown into the air, will always return to the surface of the earth, or that hydrogen, when formed into air-bubbles, will leave the earth and rise into the air. But how does the boy, who amuses himself with these pastimes, come to the knowledge of these facts? Not, assuredly, by intuition, nor instinct, nor any fundamental principle of his constitution; but by a close and attentive process of reasoning. He has either seen a stone, when thrown into the air, fall back again to the earth, or he has been told by those, whom he has reason to believe, that when so circumstanced it will do so. He then tries it himself, it succeeds as he anticipated, and he is then convinced by repeated trials that as often as he repeats the experiment the same result will succeed. All this knowledge is the fruit, not of instinctive impulse, but of reasoning, however elementary and simple it may appear. So much so is it the fruit of reasoning and experiment, that were he not convinced by a similar experience, that his air-bubbles would rise without being projected and never fall again, his mere knowledge of the stone's tendency to return to the earth when removed from it, would unquestionably induce him to predicate the same result from his experiment upon the air-bubble. The fact is that it is our very experience, our POST FACTA knowledge of the laws of nature which makes us so confident of their regularity, and many facts could be advanced to prove that the experience, which we possess of their regularity, is the precise and only measure of our confidence. Were an ignorant peasant to see, for the first time, a steamboat, at some distance upon the ocean, plying at the rate of ten miles an hour in direct opposition to a strong tide and a boisterous wind, without sails or oars, or any discoverable mode of propulsion; or were he to see, under the same circumstances, the æronaut seated in a ponderous car, ascending from the earth like some huge inhabitant of the air, and sailing along the heavens with the rapidity of an eagle, all that he ever before knew of

the laws of Nature, all that he had before seen, was obviously opposed to these laws in these phenomena, and the mysterious agency of some superhuman being would probably be considered necessary to reconcile all that he witnessed with the palpable evidence of his own senses. Yet, let a more enlightened observer, whose experience is more expanded, whose acquaintance with the thousand combinations into which matter can be wrought is more minute, and who knows how her inmost and most essential laws can as it were, be employed as the most effectual agents against each other—let such an observer be brought for the first time to witness the motion of the steamer against wind and water, and the ascent of the car against the force of gravity, and, although as ignorant of the machinery employed in either case as the unlettered and bewildered peasant, and as unable as he to form the least conjecture as to the *cur* or the *quomodo* of what is passing, still he will rest satisfied that all is done in both cases in strict accordance with the laws of Nature, and that his present perplexity and ignorance are no objections against principles, which he has ever found as universal in their existence, as they have been faithful in their operation. When the King of Siam was informed by a Dutch traveller, that at certain seasons of the year, in Holland, water became so solid, that an elephant could walk with firmness upon its surface, he replied—"I have believed many extraordinary things which you have told me, because I took you for a man of truth and veracity, but now I am convinced that you lie." The King of Siam was a true epicurean; he admitted no evidence but that of sense. He had never seen solid water, and the chances of water becoming solid under any circumstances appeared to his mind so very few and feeble, that he considered it more prudent to discredit the testimony which asserted such an event, than attach faith to a circumstance, so different from every thing he had himself witnessed.

To object to every evidence, but that of sense, merely because the thing attested is opposed to our personal experience, is weak in the extreme; yet, strange to say, this is the very essence of Mr. Hume's celebrated argument against the practicability of miracles under any circumstances. As every one admits, argues this sophistical and dangerous moralist, that the evidence of sense is superior to the evidence of testimony, as my senses have invariably borne witness to the uniformity of Nature's laws, and as not only none of my senses have ever witnessed the performance of a miracle, but the performance of a miracle supposes the violation of these laws which my senses inform me are never violated, I run less hazard in wholly rejecting as false the evidence of testimony, it matters not how strong, which attests the existence of a miracle, than were I to believe as true what is diametrically contradicted by my evidence of sense. Now, admitting this reasoning to be just, it follows that we are to credit nothing which is not in perfect harmony with our own personal, immediate knowledge, and, therefore, when the steam-boat was first seen sailing against the wind, or when the æronaut was first seen ascending in his car, both phenomena should have been considered as physical impossibilities by all, who had not witnessed their occurrence with their own eyes. According to Hume, no amount of human testimony could undeniably attest appearances so contrary to all that had been before seen, so opposed to all that he was pleased to call "unalterable experience;" and on the same ground we are advised to reject, without even examination,

miracles, however generally and strongly attested, as so many cheats upon public faith.

How a man, who was one of the first historians of his day, could pride himself in the acuteness and impregnability of such wretched jesuistry, can only be explained by those, who are experimentally acquainted with the hollow emptiness of the Deist's system. If nothing contrary to our own unalterable experience can be attested by any weight of evidence, how did he give credit to much of what he himself wrote and published and expected others to believe? Were it necessary, after Dr. Campbell's unanswerable reply to Hume's Essay on Miracles, we could point out passages and narrations in his History of England, which are received by him and retailed to the world as true, which, notwithstanding, are more difficult of belief, because more opposed to our experience, than most of the miracles which he argues no amount of evidence could attest. If we can discover inconsistency or absurdity in the substance of another's testimony, then we are called upon to discredit it, not merely because it is inconsistent with our own experience, but more especially because it is inconsistent with itself—not because the event narrated has never been seen, or heard of by any other but the narrator, but because it is in its very nature contradictory and unreasonable. Its external evidence may be suspicious enough, but its internal evidence should alone condemn it.

The grand object of Hume, Tindal, and every other deistical writer, has been to throw ridicule upon even the possibility of a miracle, by endeavouring to show that it is an absurdity, and therefore no longer an object of knowledge;—but

"This leads us to a very obvious distinction of extraordinary events,—into those which are only marvellous, and those which are to be considered miraculous. A marvellous event is one which differs in all its elements from any thing that we previously knew, without being opposed to any known principle. But a miraculous event implies much more than this, being directly opposed to what every man knows to be the established and uniform course of nature. It is farther required that such an event shall be of so obvious and palpable a kind, that every man is qualified to judge of its miraculous character, or is convinced it could not happen from the operation of any ordinary natural cause.

In receiving a statement respecting such an event, we require the highest species of testimony, or that, on which we rely with the same confidence as on the uniformity of the course of nature itself. But even with this amount of testimony, a doubt may still remain. For we have two amounts of probability which are equally balanced against each other; namely, the probability that such testimony should not deceive us, and the probability that there should be no deviation from the course of nature. The concurring evidence of numerous credible witnesses, indeed, gives a decided preponderance to the testimony; and upon a certain amount of testimony we might receive any statement, however improbable, as in the case admitted by Mr. Hume, of a universal darkness. But, though in such a case we might receive the statement as a fact which we could not dispute, the mind would be left in a state of absolute suspense and uncertainty in regard to any judgment which we could form respecting it. Something more appears to be necessary for fixing the distinct belief of a miraculous interposition; and this is an impression of moral probability. This consists of two parts. (1.) A distinct reference of the event to a power which we feel to be capable of producing it, namely—a direct interposition of the Deity. (2.) The perception of an adequate object, or a conviction of high moral probability, that an interposition of Divine power might be exerted in such circumstances, or for the accomplishment of such an object. Such are the miracles of the sacred writings. As events opposed to the common course of nature, they are, by the supposition, physically improbable in the highest degree. Were they not so—were they in the lowest degree probable according to our con-

ceptions of the course of nature, they could not be miracles, and consequently could not answer the purpose for which they are intended. But notwithstanding this species of improbability, they carry with them all the elements of absolute credibility—namely, the highest species of testimony, supported by a moral probability which bears directly upon every element of the statement." 83.

There is nothing absurd in supposing that water has been converted into wine, although we ourselves may never have witnessed such conversion; whereas it were very absurd to suppose that, after the water had been changed into wine, it still continued to possess and present its own natural and distinctive properties. Had it at one time been asserted that water could be changed into air, and that air could be converted into light, the narration would have been deemed marvellous, probably as marvellous as it appeared to the King of Siam that water could be solidified, or to Hume that it could be changed into wine; yet these are both natural phenomena, and, although we mean not to insinuate, that the conversion of water into wine depended on any law of Nature, applicable at least to the present economy of things, yet we hold that all these four conversions must appear equally singular to an inexperienced mind, and there would be equally good reason for discrediting the possibility of either on the ground, that nothing should be believed which was opposed to personal experience.

It is very little short of nonsense when any man talks of his unalterable experience. However extensive his opportunities for observation, however expanded his talents, however wide and comprehensive his acquirements, his store of facts must be very scanty, and his experience of to-day will be altered by the occurrences of to-morrow. As observation multiplies experience increases; new inferences are found, old opinions are modified, and deductions, which had been once considered just, are discovered to be inaccurate. Our experience, consequently, even of the laws of Nature, is changing hourly, unless we cease to observe the changes which occur hourly around us, and events, which would at one period of the world have been esteemed impossible, or would have been ascribed to the operation of some unearthly influence, can now be traced with unerring certainty to some principle, which had been then equally in operation, but was utterly unknown. Our author has made many excellent observations in harmony with the spirit of these strictures, but space will not permit us to extract them. In his sketch of the intellectual operations the following passage occurs on the influence of arbitrary association, which we cannot deny ourselves the pleasure of bringing forward.

"It is unnecessary to enlarge upon the subject of arbitrary association, as the observation of every one will furnish numerous examples of it. There is one application of the principle, however, which deserves to be referred to in a more particular manner. I allude to the practice of commemorative rites, or periodical observances, for transmitting the remembrance of remarkable events. These are, in their nature, in general, entirely arbitrary; or, if they have any analogy to the events, the relation is only figurative. But the influence of such celebrations is of the most extensive and most important kind. If the events, particularly, are of a very uncommon character, these rites remove any feeling of uncertainty which attaches to traditional testimony, when it has been transmitted through a long period of time, and consequently, through a great number of individuals. They carry us back, in one unbroken series, to the period of the events themselves, and to the individuals who were witnesses of them.

The most important application of the principle, in the manner now referred to, is in the observances of religion which are intended to commemorate those events which are connected with the revelation of the Christian faith. The importance of this mode of transmission has not been sufficiently attended to by those, who have urged the insufficiency of human testimony, to establish the truth of events which are at variance with the common course of nature. We have formerly alluded to one part of this sophism, and have stated the grounds on which we contend, that no objection to the credibility of these events can be founded upon our observation of what we call the course of nature. We have admitted, that a much higher species of evidence is required for them than would be required for events which correspond with our previous observation; and this high and peculiar evidence is confirmed in a striking manner by the periodical rites now referred to. By means of these we are freed entirely from every impression of the fallibility of testimony, and the possibility of the statements having been fabricated; as we are conducted in one uninterrupted series, to the period when the events took place, and to the individuals who witnessed them. This will appear, if we state in a few words a hypothetical case. Let us conceive a person attempting to impose upon the world, by an account of some wonderful or miraculous event, which, he alleges, occured 500 years ago. He, of course, exerts every possible ingenuity in fabricating documents, and framing the appearance of a chain of testimony in support of his statement. It is quite possible that he might thus deceive a considerable number of credulous persons; and that others, who did not believe his statement, might yet find difficulty in proving its fallacy. But, if the report were farther to bear, that, ever since the occurrence of the alleged event, it had been regularly and specially celebrated by a certain periodical observance, it is clear that this would bring the statement to the test of a fact open to examination, and that the fallacy of the whole would be instantly detected.

On these principles it must appear, that the staetments of the sacred writings, respecting miraculous events which are said to have occurred upwards of 1800 years ago, could not have been fabricated at any intermediate era during that period. It is unnecessary to state, how much more improbable it is, that they could have been fabricated at the very time and place in which they are said to have occurred, and in the midst of thousands who are said to have witnessed them, many of whom were deeply interested in detecting their fallacy. This part of the question is not connected with our present inquiry, but it is impossible to dismiss the subject without one reflection:—that if we are to proceed upon the principle of probabilities, we must balance fairly the probabilities of fabrication. If we do so, we hesitate not to assert, that the probability of the world being imposed upon, under all the circumstances now alluded to, is more at variance with our firm and unalterable experience, than all that we are called upon to believe." 125.

The Dr.'s account of the action and progress of disease upon the mind is extremely interesting, in tracing it up from the first aberration of thought to confirmed insanity; and as we have devoted as much of our space to what may be more strictly considered the metaphysics of this volume, as can well be expected in a medical review, the author must not conlcude by our omitting to notice several sections, that they are inferior to the context in execution.

Attention is supposed to be the first mental function which bodily disease impairs; memory is soon affected by consequence, for although our perceptions may be perfectly correct, it is attention alone which renders their recollection sure; and as memory deteriorates, every other mental exercise becomes impaired. Objects being first imperfectly perceived and afterwards indistinctly recollected, the judgment is misled by misrepresented qualities, and misconceived resemblances. A man mentioned by Mr. Abernethy, who was a native of France, but had spent the greater part of his life in England, received an injury on the head, after which his French was perfectly restored to him, although previously to the accident he had quite lost the habit of speaking it. Dr. Prichard cites the case of a lady, who, during a fit of de-

lirium, addressed her attendants in a tongue which no one at first understood, but which was afterwards discovered to be Welch. For a long time it was matter of mystery to her friends, how she became acquainted with a language so very different from her own; but it was discovered after minute inquiry, that during infancy she had been nursed by a woman, who had formerly belonged to the coast of Brittany. A gentleman, whose case is given by Dr. Beattie, received a blow on his head, and with it immediately vanished every recollection of the Greek language, with which he had before been sufficiently conversant.

Nothing can more strikingly illustrate the very intimate influence, which corporeal disease exerts upon purely mental operations, weakening, deranging, and even wholly disabling them, than such accidents as we have now recorded, and the materialist has not failed to turn this circumstance to his account. But, if it be fair to ground upon a morbid state of the system an argument, which is to apply to a natural condition, it cannot be refused us to turn the weapons of our opponents against themselves, and to show how frequently the body is wofully, irrecoverably diseased, without materially affecting the mental faculties. How often do we find the shadowy, shivering skeleton, whose material system has been wasted by protracted illness into a frightful atomy, with a perception as acute, a memory as faithful, a judgment as correct, and an imagination as chaste, as though the patient were in the enjoyment of the most brilliant state of health. Disease may have brought existence to the very verge of extinction, and the dilapidated tenement may be heaving its last expiration upon the margin of the tomb, and yet the soul may be as elastic in its powers, and as energetic in their exercise, as when this frail and temporary frame-work stood strong in all the vigour of unimpaired manhood. The skull has been shattered, and large portions of the brain have been mashed into shapeless pulp, and yet the mind has maintained undisturbed possession of her throne, unshook by the violence thus committed in her neighbourhood. Dr. Abercrombie, in his work upon the Brain, has narrated the case of a lady, in whom one half of her brain was reduced to a diseased mass, yet who retained all her mental powers to the last, and had formed one of a convivial party a few hours before death. A man is described by Dr. Ferriar, who died suddenly, but in the full exercise of mind, although upon inspection it was found, that the right hemisphere of his brain was completely suppurated; and Mr. O'Halloran mentions a man, who sustained such an injury of the head, that a large portion of the skull was removed on the right side, and through this opening a large quantity of matter, mixed with portions of brain, was discharged at each dressing. This went on for seventeen days, until nearly one half of the brain was destroyed; yet through the whole of this affection the mind steadily maintained its vigour, and even at the moment of dissolution betrayed no sympathy with such frightful disorganization. How such facts as these can be met by the materialists, they are perhaps best prepared to say; but one thing is certain, that there is no organ in the whole body so sensible to injury as the brain, which could perfectly elaborate its secretions under such disease, or unexceptionably perform its functions under such disadvantages. Such facts the Dr. very truly observes—

"Show us indeed, in a very striking manner, the mind holding intercourse with the external world, through the medium of the brain and nervous system; and, by certain diseases of these organs, they show this intercourse impaired or suspended; but they show nothing more. In particular, they warrant nothing in any degree analogous to those partial deductions which form the basis of materialism. On the contrary, they show us the brain injured and diseased to an extraordinary extent, without the mental functions being affected in any sensible degree. They show us, farther, the manifestations of mind obscured for a time, and yet reviving in all their original vigour, almost in the very moment of dissolution. Finally, they exhibit to us the mind, cut off from all intercourse with the external world, recalling its old impressions, even of things long forgotten; and exercising its powers on those which had long ceased to exist, in a manner totally irreconcileable with any idea we can form of a material function." 156.

On the other hand, how often do we see the most intemperate insanity—an utter wreck of all the mental functions—without being able to detect the slightest structural derangement? The works of Esquirol, Pinel, Haslam and Burrows, bear undeniable attestation to this fact, and every practitioner of any consequence must often meet with proofs of it within the range of his own experience. The brain shall appear quite sound—neither too soft nor too hard, neither too pale nor too vascular, neither diminished nor enlarged, neither externally malformed by Nature nor internally altered by disease;—yet the perception shall be false, the memory shall be faithless, the judgment shall be deranged, the imagination shall be extravagant, and the whole mind shall be disqualified from performing one series of connected thought. It is certainly no proof that the body is not somewhere, or somehow diseased, because we can discover none;—but it is a proof that derangement of mind bears no proportion to derangement of matter, and that no argument in favour of the meteriality of mind can be drawn from pathology.

Next to that of dissecting the thinking principle into a thousand members, no mistake appears to us more productive of confusion upon this subject, than that of regarding insanity as a distinct and specific malady, composed of ingredients so exclusively its own, that they can never exist where it is absent. As it is generally understood it is considered a peculiar and almost hopeless derangement of the thinking principle. The insane are regarded as labouring under a strange and anomalous bereavement; as severed from society by some signal dispensation of misfortune, which rightfully excludes them from the privileges, and almost from the sympathies of humanity. The leprosy was never more esteemed among the Jews as a judicial infliction, than madness is with us. The leper and the maniac are equally avoided, equally outcast, equally treated with a repulsive feeling of aversion; and the day has not long gone by, when mental derangement under every form was ascribed to the presence of some demoniacal influence. It is a fact, however, as indisputable as it is important, that the idiot, the lunatic and the madman are nearly allied to the man of prudence, the man of talent, and the man of high and varied erudition. Eccentricity is seen every day, and therefore it passes without observation; but eccentricity is only one form of derangement. The difference between eccentricity and mono-maniasm is merely a difference of degree, and any other difference, than in extent, between mono-maniasm and confirmed madness it were difficult to specify. *Nemo mortalium omnibus horis sapit* loses nothing of its force by being an old and hackneyed sentiment; and could we persuade the world that mental derangement,

in some form or degree, is universal, the outcast and deserted lunatic would stand a better chance of recovery, or of receiving better treatment should he not recover. He, who is not certain how soon he may himself occupy a cell in some asylum, will probably feel more interest in the comfort and restoration of those, who had been once rational; and if no purer principle than selfishness can be excited in behalf of lunatics, few generally can be lectured with more effect.

Mind is seldom found in a state of unexceptionable integrity, and the degrees of derangement which it suffers are so infinite, that in the largest receptacle of lunatics, which we have ever entered, no two of its inmates could be discovered who were in all respects similarly crazed.

"The peculiar character of insanity, in all its modifications, appears to be, that a certain impression has fixed itself upon the mind, in such a manner as to exclude all others; or to exclude them from that influence which they ought to have on the mind in its estimate of the relations of things. This impression may be entirely visionary and unfounded; or it may be in itself true, but distorted in the applications which the unsound mind makes of it, and the consequences which are deduced from it. Thus, a man of wealth fancies himself a beggar, and in danger of dying of hunger. Another takes up the same impression, who has, in fact, sustained some considerable loss. In the one, the impression is entirely visionary, like that which might occur in a dream. In the other, it is a real and true impression, carried to consequences which it does not warrant.

There is a great variety in the degree to which the mind is influenced by the erroneous impression. In some cases, it is such as entirely excludes all others, even those immediately arising from the evidence of the senses, as in the state of perfect mania formerly referred to. In many others, though in a less degree than this, it is such as to change the whole character. The particular manner, in which this more immediately appears, will depend of course upon the nature of the erroneous impression. A person, formerly most correct in his conduct and habits, may become obscene and blasphemous; accustomed occupations become odious to him; the nearest and most beloved friends become objects of his aversion and abhorrence. Much interesting matter of observation often arises out of these peculiarities; and it is no less interesting to observe, during convalescence, the gradual return to former habits and attachments. A young lady, mentioned by Dr. Spurzheim, who had been for some time confined in a lunatic asylum, had shown, for several weeks, every mark of a sound mind except one,—she hated her father. At length, she one day acknowledged, with pleasure, the return of her filial attachment, and was soon after discharged, entirely recovered. Even when the erroneous impression is confined to a single subject, it is remarkable how it absorbs the attention, to the exclusion of other feelings of a most intense and powerful kind. I knew a person of wealth, who had fallen into a temporary state of melancholic hallucination, in connexion with a transaction in business which he regretted having made, but of which the real effect was of a trifling nature. While in this situation, the most severe distress occurred in his family, by the death of one of them under painful circumstances, without his being affected by it in the slightest degree.

The uniformity of the impressions of maniacs is indeed so remarkable, that it has been proposed by Pinel, as a test for distinguishing real from feigned insanity. He has seen melancholics confined in the Bicetre, for twelve, fifteen, twenty, and even thirty years; and, through the whole of that period, their hallucination has been limited to one subject. Others, after a course of years, have changed from one hallucination to another. A man, mentioned by him, was for eight years constantly haunted with the idea of being poisoned; he then changed his hallucination, became sovereign of the world and extremely happy, and thus continued for four years." 311.

All the principal theories of insanity we apprehend, are the offspring of one common error. One function, or department of mind has generally been fixed upon as the faculty diseased, and the selection made has too

often depended upon some peculiar crotchet in the brain of the theorist, resulting from the observation of a few peculiar cases which happen to fall within his own notice. But insanity must be studied with more extent of view, and can only be thoroughly understood in its ten thousand modifications of aspect, by being seen and studied in them all. The imagination may be extravagant, the perception may be deceptive, the judgment may be diseased, the association may be disordered, or, the memory may be deranged. Any one of these states of mind, when present to excess, will often so unhinge every other mental power, and so peculiarise every mental operation, as to impart to the whole conduct an air of imbecility, or actual derangement. It is impossible to trace every instance of insanity to an anormal condition of any one function, or specific exercise of mind; and it is to this attempt we are indebted for many of the crude and inconsistent speculations of writers upon this disease. The author refers to the five following heads the principal forms of mental hallucination;—1st. to propensities of character, which circumstances had restrained during health; —2dly to old associations, recalled to the mind and mixed up with more recent occurrences; —3dly, to visions of the imagination, which had formerly been indulged in;—4thly, to corporeal feelings, and, lastly, to a vague and ill-defined consciousness, on the part of the insane, of the deranged state of his mental powers.

"Attempts have been made to refer insanity to disease of bodily organs, but hitherto without success. In some instances, we are able to trace a connexion of this kind; but in a large proportion, we can trace no bodily disease. On this subject, as well as various other points, connected with the phenomena of insanity, extensive and careful observation will be required, before we are entitled to advance to any conclusions. In regard to what have been called the moral causes of insanity, also I suspect there has been a good deal of fallacy, arising from considering as a moral cause, what was really a part of the disease. Thus, we find so many cases of insanity referred to erroneous views of religion, so many to love, so many to ambition, &c. But, perhaps it may be doubted whether that which was in these cases considered as the causes was not rather, in many instances, a part of the hallucination. And even when the mind does give way under a great moral cause, such as overwhelming misfortunes, we often find that the hallucination does not refer to them, but to something entirely distinct;—striking examples of this are mentioned by Pinel." 325.

There is reason to believe, that we are unable to fathom the Doctor's real meaning in this passage, because, were it not for other expressions in his book which discountenance the doctrine, the language here employed would incline us to suspect, that he considered mind itself capable of disease. This view we are convinced Dr. Abercrombie does not advocate, and therefore we must ascribe any suspicion, which may appear in the extract now given, to the inaptitude of the terms in which it is written, rather than to the sentiments which these terms were intended to convey. Bodily disorder of some kind or other is, unquestionably, the sole cause of insanity of mind. It is impossible to attach, even in conception, disease to any thing purely spiritual, and, although the corporeal derangement may escape observation, and only manifest its existence by unhinging the understanding, that is no ground for inferring, that it is the understanding itself which is primarily diseased.

Many curious observations are made on the subjects of spectral illusions,

somnambulism and dreams, but we are compelled to pass on to the fourth part of the Doctor's volume, which is, at least in a medical point of view, more important than either of the three which have been so hastily run over. Indeed, we feel somewhat disappointed that a physician of such experience and talent—to whom the deficiencies of our present mode of *medical instruction* must appear glaringly obvious, and the weight of whose authority upon such a subject could not fail to call the public attention to its pernicious effects—should have appropriated so small a portion of his space to the application of philosophy to medical science. We should not, however, feel surprised if the Doctor have only reserved himself for a future opportunity ;—if so, we shall be among the foremost to stamp with our official passport any thing, which may emanate upon this subject from such a quarter ;—anticipating as we can from the sample now before us, that the honor which it would confer upon the writer would be trifling when estimated with the advantage which would accrue from it to the profession. Mind may be imperfectly known in other departments of science, and ignorance in the elements of reasoning may mar the general progress of knowledge ; but—sorry are we to say it—in no profession are such defects so extensively prevalent, or so mischievuosly effective, as in medicine. Metaphysics are scarcely ever thought of as an *essential* component of even a physician's education, and although in Oxford, Cambridge and Dublin, the preliminary studies of a medical graduate's course *nominally* embrace the science of mind, if we are to follow an old, but sensible rule of judging of its benefits —by their fruits you shall know them—we shall find but little reason for making these seminaries of learning exceptions to our general criticism. When the hurried curriculum of study, which a general practitioner is required to run through, is considered—when we know that twelve months' lectures, at almost any hedge-school of medicine, entitle him to an examination before the chartered authorities—when we examine the nature and the extent of the acquirements which are sufficient to pass these grave tribunals with glowing honors—and when we know how much requires to be read, and seen, and studied, to qualify the most gifted mind, surrounded and aided by the most favorable circumstances, for treating disease in its ten thousand forms—we can easily see, why such a thing as mind and pure science are wholly overlooked in this hastened preparation, and why the whole attention is bent upon the more palpable and payable preparatives for practice. It is an infinitely more pressing study to know the colors, and the smells, and the weights, and the prices of drugs—to know the art of labelling bottles, of directing cards, of gilding pills, and of administering lavements—to acquire the tactics of professional manœuvering, of getting introduced to influential circles, of undermining the progress of rival practitioners, and of pleasing the senses of our patients by arranging the colors of our mixtures and the tastes of our draughts. These are the *first elements of medical science*, and, as upon the first rudiments in every branch of knowledge depend future success and more general attainments, it is methodical enough to settle the foundation ere we commence the superstructure. Æsculapius prevent us from saying ought disrespectfully of the art and mystery of medicine, or of needlessly intermeddling with the shades and savors of its drugs ! It may be prudent to bribe as many of the senses of our patients as we can, that they may report favorably of our pills and

potions; and when one is under the necessity of being physicked, he may as well be purged or vomited by medicines wearing his favourite colours;—this may all be little affairs of *trade*, which it were only vexatious and meddlesome to say much concerning; but the sin which we are raising our voice against is the habit, the universal custom of devoting so much attention, of ascribing so much importance, and of wasting so much time on learning these *rudiments of quackery*, while the very grammar of the science lies still unopened and very probably despised.

The uncertainty of medicine and the obscurity of disease are no reasons why disease should not be treated with all the facilities, which a competent education can afford, and why medicine should not be studied with all the care and enlightenment, which any other scientific subject of pursuit demands. The very difficulty of an investigation is the strongest reason, why the mind of the investigator should be more than commonly prepared for it; and he who chooses a profession, because many of its principles are unsettled, and because ignorant presumption may often be mistaken for enlightened confidence, is only a gambler in speculation, who wishes to cover his own incompetency under the hazards of the game. There is no doubt but such speculation occasionally secures its object, and that fame and fortune are the stakes it wins; but it is equally certain, that it more frequently miscarries, and although we cannot hope that any argument, founded upon its immorality, can have much effect with such minds as engage in it, we are not acquainted with any form of gambling half so immoral in its principles, or half so ruinous in its effects.

The science of medicine is, certainly, not like the science of mathematics, nor the science of numbers, nor like any of the exact sciences. Its principles are not in every instance reducible to demonstration, and its details too often flow without the precision of direct and necessary sequences; notwithstanding, medicine is a pure science. Many of its principles are as precise and as fixed, and many of its details can be as safely inferred and as certainly depended on, as those of any of the more exact sciences; and we maintain that much, if not most of the opprobrious uncertainty, which is so vehemently railed against by some, and humourously boasted of by others, is the unmixed result of the incompetency, indifference, and venality of its professors. The public have lately taken greater liberties with the medical practitioner than they ever before attempted. Charges of ignorance and indictments for mal-practice would, some years ago, have been regarded as monstrous, if not miraculous:—they were never heard of—they were never thought of; but *tempora*, and I believe we may add, *cum hominibus mutantur*. The medical practitioner cannot at present deliver a woman, or open a vein, or adjust a fracture, or perform the very most trifling operation, without having the terrors of a judgment-seat constantly before his eyes; and if the dread of law can effect, what a love of science and a respect for the interests of humanity should have secured, we fear it will do but little in restoring him to public confidence.

In studying any subject, the first thing to be done is to collect as many facts relating to it as we have reason to believe are sufficiently accurate;—in the second place, these facts should be carefully compared with each other, and arranged according to their resemblances, or dissimilarities;—in the

third place, we should trace any connexion which may exist between these facts, so as to ascertain the nature and extent of their influence upon each other; and lastly, from these ascertained facts and arranged relations such general inferences should be drawn, as may guide us in our further investigations. These four simple rules comprehend, in the Doctor's opinion, all that is necessary to be observed in studying medicine as a science; and we have no doubt that were some such rules as these strictly attended to, in studying the laws of animal life, the nature of disease, and the action of remedies, medicine would ere long be divested of much of that empiricism, which now disgraces her, and her professors would exchange the rank and repectability of trading grocers, for that of lovers of truth and enlightened friends of humanity. In collecting our facts the following sources of fallacy should be kept constantly in view, that we may not be guilty of—

"(1.) Receiving as facts, statements which are not facts but opinions.—A person dies after being affected with a certain set of symptoms, and we find, on examination after death, the usual appearances of hydrocephalus. Another is seized with similar symptoms, and recovers. He is therefore said to have recovered from hydrocephalus, and such a statement is often given as a medical fact. The man's recovery from certain symptoms is a fact; that he recovers from hydrocephalus is not a fact but an opinion.

(2.) Receiving as a fact, a statement which only assumes the relation of facts.—A person recovers from a particular disease, while he was using a particular remedy. His recovery is ascribed to the effect of the remedy; and the cure of the disease by this remedy is often given as a medical fact. The man's recovery is a fact; and that he used the remedy is another fact; but the connexion of the remedy with his recovery we are not entitled to assume as a fact. It is tracing between the facts the relation of cause and effect,—a process of the utmost delicacy, and not to be admitted on any occasion, but with the greatest caution.

(3.) Receiving as facts, general statements, or the generalization of facts. One of the most common examples of this error occurs, when a statement is given of a symptom or set of symptoms, as certainly diagnostic of any particular disease, or of a particular morbid condition of an internal organ. Such a statement we hold to be of no value, except we have absolute confidence in the narrator, both in regard to his habits as a philosophical observer, and to the extent of the observations on which his statement is founded. But, with every possible advantage in these respects, we are to exercise the utmost caution before we receive the relation, thus stated, as a fact; for it is to be kept in mind, that it is not properly a fact, but a generalization of facts. Some writers, for instance, have maintained with much confidence, that a particular state of rigidity of some of the limbs is distinctly characteristic of ramollissement of the brain. But further observation has shown that the disease may exist without this symptom, and that this condition of the limbs may appear in connexion with other diseases. Their observation of facts was in so far correct, that this state of limbs does very often accompany ramollissement of the brain; the error consisted in giving it as a general fact, or a fact applicable to all cases of ramollissement—which is without foundation. Yet such statements, when brought forward with confidence, are often received as facts, and rested upon as established principles; and then the facts by which their fallacy might be detected are apt to be overlooked or forgotten.

This may perhaps be considered as one of the most pervailing errors in the modern science of medicine; and it is indeed astonishing to observe the confidence with which such statements are brought forward, and the facility with which they are received as equivalent to facts, without attention to the manifold sources of fallacy with which they are encumbered. Does a writer, for example, tell us he has ascertained that the spinal cord is diseased in all cases of Tetanus. If we knew that such a statement had been founded on the careful observation of an hundred cases, it would be of value; if it was deduced from a few, its value is greatly diminished. But even if it had been deduced from the larger number, certain doubts would still arise in considering the relation thus stated as a fact. We should naturally ask ourselves,—was the narrator qualified to judge of the facts and their

relations,—were the cases referred to, all really cases of Tetanus,—were the appearances in the cord such as could properly be considered as indicating disease,—or might any of them have been mere changes of colour, or other incidental appearances, which might have taken place after death, or might have been the effect of the convulsion rather than its cause,—or were they such changes as may be found in other cases without any symptoms of Tetanus? Other sources of fallacy will come into view, if the statement be, that the narrator has uniformly found a certain remedy of great efficacy in a particular disease. Here, in the first place, similar questions occur as in the former instance;—on how many cases did he found his statement,—how did he ascertain the disease,—and was he qualified to decide that it really was a case of the disease which he alleges. But, supposing all these questions to be answered in a satisfactory manner, others still arise, namely,—had the alleged treatment really any influence on the recovery of the patients,—did they get well in consequence of the treatment, or in spite of it, or altogether independently of it,—have not similar cases recovered spontaneously, or under modes of treatment entirely different.—Such is the uncertainty of causation and generalization in medicine; and such is the danger of receiving general statements as equivalent to facts." 382.

In arranging these facts for classification we should separate the fortuitous from the uniform, and the suspicious from those which have been thoroughly ascertained. And here we cannot refrain from expressing ourselves in the strongest manner on a subject which the Dr. has very properly introduced—we mean an unreasonable attachment to nosological distinctions. "The nosologist," he justly remarks, "proceeds upon the principle, that the characters of disease are to a certain extent fixed and determined, like the botanical characters of a plant, or the chemical properties of a mineral." And what are the consequences?—Why, that the young and inexperienced practitioner, who goes out into the world with his memory loaded with the definitions of a favorite nosology, lays his master's rule and line to every thing which he sees and reads, and if any discrepancy from the standard can be detected the case is considered anomalous, and how much soever it may in other respects resemble a well-defined and obvious disease, the young nosologist stands confounded, and unable to proceed one step upon ground, which the limits of his lesson were not intended to embrace. One and the same disease often wears a hundred different appearances in a hundred different constitutions, and a definition of it, which would include all the symptoms which constitute these modifications, would often be so general and vague, that it would be more applicable to all than distinctive of any. The definitions, which are most useful in medicine, are descriptions; and the less the student cramps his observation under the direction of such meagre guides, the more speedily will he become acquainted with the general principle of disease. Exclusive of the fact, that the nosologist is very frequently wrong in his definition, he is often so inaccurate in his language, that he, who implicitly follows his definitions at the bed-side of sickness, will not seldom fall into dangerous mistakes. Thus, hydrocephalus implies the existence of water in the head, yet we may have water in the head without hydrocephalic symptoms, and hydrocephalic symptoms without water;—

"On this subject I shall only add the following anecdote, which I lately received from a medical man of very high intelligence. At an early period of his career as a naval surgeon, he was left in charge of a ship on the West India station, when several sailors presented themselves, with an affection of the legs, the nature of which was entirely new to him. Hav-

ing expressed his difficulty to one of the officers, not medical, he was promptly told that the disease was scurvy, and that, if he examined the gums of his patients, he would find sufficient evidence. To this he replied, that the thing was impossible, because, in the nosology of Dr. Cullen, it was expressly specified, that scurvy occurs 'in regione frigida.' He was, however, soon convinced that the disease was really scurvy, though it occured in the West Indies; and, as he added, received a most important lesson, to observe for himself, instead of trusting to systems." 387.

In tracing the connexion between different facts, so as to ascertain their relation, before we can safely infer that one is the other's cause or consequence, we should be certain that their apparent connexion is real, that it is immediate, and that it is invariable. A medicine of some reputation is given at the crisis of a disease; next day the patient is better, and on the day following all danger has passed. This improvement is very naturally attributed to the administration of this remedy, and when a case of a similar description recurs it is again employed with confidence of relief, but is found to produce no effect. Ulcerated intestines are a frequent attendant, or consequence of fever; they have, therefore, been esteemed by some as the cause of every other symptom, and that if the mucous action, which occasions them, be overcome, the fever will be cured. Diseased liver is frequently co-existent with hydrocephalus, therefore, in place of considering it a concomitant effect with the hydrocephalic symptoms, it has been ranked by some among its causes.

"A gentleman, immersed in the business or the pleasures of a great city, becomes disordered in his health, dyspeptic and hypochondriacal. He receives much good advice from his medical friend, which he professes to follow with implicit confidence, and proceeds to do so amid the anxieties of business, bad air, late hours, luxurious dinners, and nearly the total want of bodily exercise. Deriving no benefit from all that is done for him, he hears of some celebrated water, which has acquired great reputation in the cure of stomach complaints, and at length makes up his mind to resort thither, though with little hope of deriving benefit from any thing. He now lays aside all business, lives by rule, keeps early hours, and is all day long in the open air. He soon recovers excellent health, and cordially concurs in spreading the fame of the water by which a cure so wonderful has been accomplished. An anecdote has been related of a physician in London having advised a dyspeptic patient, who had baffled all his remedies, to go down and consult a celebrated physician in Inverness, whose name he gave him. On arriving there, he soon discovered that there was no such person to be found. He then returned to London, somewhat nettled at the trick which had been practised upon him, though he was obliged to acknowledge that he was cured of his disorder. On this subject we are especially to keep in mind, the extensive class of diseases which are acted upon, in a most powerful manner, by causes entirely mental. These are the numerous and ever varying maladies, which are included under the terms, dyspeptic, hypochondriacal, and nervous. Many of them have their origin in mental emotions which elude observation; and a very large proportion are entirely referable to indolence, and inaction,—to that vacuity of mind attending the unfortunate condition in which there is no object in life but to find amusement for the passing hour. When, on patients of this description, the dexterous empiric produced results which the scientific physician had failed to accomplish, we are too apt, to accuse him, in sweeping terms, of practising upon their credulity. He, in fact, employs a class of remedies of the most powerful kind, to which the other perhaps attaches too little importance, namely, mental excitement and mental occupation,—the stimulus of having something to hope and something to do." 396.

In generalizing, or deducing general principles from individual facts, the grand error, into which we are disposed to fall, is drawing conclusions intended for universal application from a few personal observations, and a

very limited experience. The physician of a few patients dogmatizes and dictates with as much pertinacity, as though he were the sole medical adviser of an entire colony; and whatever statements oppose his local knowledge, by whomsoever they may be made, or however they may be arrived at, they are rejected on the single ground of this very opposition. It is truly ludicrous to see some of these men with one idea, stigmatizing the experience of accumulated centuries as a bundle of unconcocted rubbish, and encountering the conclusions of extensive and enlightened observation, as hasty inferences and mistaken theory. Every village bone-setter has his facts and his principles, his secret views and his specific remedies; and, although the sphere of practice, from which these have been obtained, may not measure a mile square, the facts and principles of continents and colleges are frequently opposed to them in vain.

Every principle is worse than useless, unless it be universal; and unless a principle, designed for universal application, be well established, its universality will prove one of its most pernicious consequences. The humoralists ascribed a thousand symptoms to states of the fluids which they never proved to have a positive existence. Their lentor, viscidity, alkalescence, acidity, putrescence, dissolution, were properties utterly hypothetical, although made to explain less equivocal phenomena, and it may be safely added that our doctrines of spasm, sympathy, irritation, and many other popular *principia* of the present day, are as ill established, and as loosely defined. The following observations cannot be too highly estimated.

"The benefit which a physician derives from his own opportunities of observation, in common language called his experience, is not in proportion to the period of time over which it has extended, or the number of facts which have passed under his view. It must depend on the attention with which he has observed these facts, and traced their relations to each other,—on the anxiety with which he has separated incidental relations from those which are uniform,—and the caution with which he has ventured on assuming the relation of cause and effect, or has advanced to general principles. It must depend, farther, on the jealousy and suspicion with which he has received even his own conclusions, and the care with which he has corrected them from time to time by farther observations. Finally, it must depend on the judgment with which he applies the knowledge thus acquired, to the investigation and treatment of new cases,—by tracing promptly to the points of affinity between the case under his view, and those cases on which his knowledge was founded: —by discovering real points of resemblance where there is an apparent difference, and real points of difference where there is an apparent resemblance. The farther a physician advances in this course of rigid enquiry, he becomes more sensible of the difficulties with which his science is encumbered, more suspicious of all general conclusions, and more anxious to bring them to the test of minute and extensive observation; in particular he learns to exercise more and more caution in considering any one event in medicine as the cause of another. In real acquisition, consequently, his progress is slow: for much of his improvement consists in detecting the fallacy of systems which he once considered as established, and the instability of principles in which he once confided as infallible. But these discoveries prepare the way for his actual progress, and the conclusions at which he does arrive then fall upon his mind with all the authority of truth." 420.

We must now close this volume, and we do so with feelings of respect for its author, which his former works, however valuable, were not so well calculated to inspire. The subjects handled on the present occasion are—many of them so extra-professional, and some of them so abstruse—that we did not expect a laboured treatise on the structure and science of mind

from a pen, which had been long and deeply engaged in investigations of so different a character. It is true, that there is little originality attempted in these *Inquiries*, and that much of the matter which they contain we have been long made acquainted with by writers of another school; but metaphysics is, perhaps, the last field, which any man ambitious of originality would enter in quest of fruit, and our profession stand much less in need of brilliant discoveries on the essence, or exercise of the mental powers, than of a general and practical acquaintance with mind, as it is already known. This more useful information is contained in these enquiries, and the strongest argument by which we can urge them upon the attention of our readers, will be found in the voluminous review, with which we have considered it our duty to introduce them to their notice. To conclude in the phraseology of their subject, they exhibit much clearness of perception, much precision of idea, much accuracy of association, much good taste and strong judgment, and, although last, certainly not least in these days, a moral system so religiously disciplined, as can confer upon a head well-informed all the advantages of a heart well regulated. The style is occasionally loose, and the language is not perhaps sufficiently precise for metaphysical disquisition; but when the pursuits and avocations of the writer are considered, it is less remarkable that such slight deficiencies are found, than that they should so rarely occur.

II.

THE EFFECTS OF THE PRINCIPAL ARTS, TRADES, AND PROFESSIONS, AND OF THE CIVIC STATES AND HABITS OF LIVING, ON HEALTH AND LONGEVITY. By *C. Turner Thackrah.* Octavo, pp. 126. Longmans, London, 1831.

DR THACKRAH, from his residence as a medical practitioner, in the great manufacturing city of Leeds, has had ample opportunities of observing the general and peculiar effects of trades and professions on the human constitution. Our author has followed the path of Ramazini, and has produced a volume replete with useful observations and sensible remarks, interesting to all medical practitioners, but especially to those who reside in manufacturing towns.

Dr. T. asks these two questions—do the fifty thousand men employed in the manufactories of Leeds enjoy that vigour of body which is ever a direct good, and without which all other advantages are worthless? Do they live as long as the agriculturalists? The unhealthy appearance of the population affords an unequivocal reply to the first question. The bills of mortality answer in the negative to the second. For the convenience of enquiry our author divides the inhabitants of Leeds into four classes—the operatives—dealers—master-manufacturers and merchants—professional men. Dr. T. commences with those operatives that live a good deal in the open air, and who "come nearest the perfection of the physical state."

At the head of this list stands the BUTCHERS. These are much in the open air, take active exercise, and eat fresh animal food at least twice a day. They are plump and rosy—cheerful and good-natured—nor does their bloody occupation render them savage, as theorists pretend, or as the English law presumes. They live in easier circumstances than most other operatives, for meat is always in requisition, whether the times be good or bad. They are subject to few ailments—and those chiefly from plethora. It is very rare to see any of them phthisical. Yet they are not remarkable for longevity—they are even rather shorter lived than people less healthy. In fact, they live too well to live very long.

FISHMONGERS, who bring fish from the coast, are much exposed to the weather, and are generally temperate, hardy, and healthy. Not so the town retailers of fish. They are addicted to dram-drinking, and are sickly and short-lived.

CART-DRIVERS, labourers in husbandry, sand-leaders, bricklayers, and such people, would be healthy if they were well fed; but this, unfortunately, is not the case. The bricklayers, though so much exposed to wet and cold, are seldom affected by rheumatism, catarrhs, or pneumonia.

CHAISE-DRIVERS and postillions would be very healthy, did they not drink so much spirit. Postillions, indeed, from their postures, exercise some parts of the body more than others, and are liable, for obvious reasons, to curvatures of the spine.

"The atmospheric vicissitudes to which all drivers are exposed, are thought to produce rheumatism and inflammation of the lungs. I conceive, however, that these diseases would rarely occur to abstemious men. It is intemperance which gives the susceptibility to such maladies; and it is intemperance which produces much greater, the fatal affections which we have just mentioned. I scarcely need add, that the whole class is short-lived. They generally die before they reach the age of 50. Among all the Leeds men, we could find only three individuals who are old, and two of these have the character of great temperance." 12.

Passing over some subordinate classes of operatives, we come to those who carry on their avocations in confined or impure air. The air of Leeds is nearly as much impregnated with carbon as the air of London. This state of atmosphere affects the inhabitants. Their complexion is pallid—"and the tongue shews that digestion is disordered and imperfect." Dr. T. thinks that not a tenth part of the inhabitants of Leeds enjoy full health. The lungs suffer much less from this sooty atmosphere than might be expected. Tailors, from their accumulation in crowded rooms, and the want of air and exercise are very unhealthy. Disorders of the stomach and bowels are general, and often obstinate. Pulmonary consumption is also frequent. We see no plump and rosy tailors—none of fine form and strong muscle. The spine is generally curved. We are rather surprized at this—for the muscles of the spine are more worked than any other muscles of the body except those of the right arm. The tailor, like other men whose physical energies are depressed, often seeks the baneful comfort of ale and ardent spirit. The following suggestion, we fear, will not be adopted.

"The position of the tailor might be amended. He now sits cross-legged on a board; because in the ordinary sitting posture he could not hold a heavy piece of cloth high enough for his eyes to direct his needle. Let a hole be made in the board of the circumfer-

ence of his body, and let his seat be placed below it. The eyes and the hands will then be sufficiently near his work, his spine will not be unnaturally bent, and his chest and abdomen will be free. I am aware that old workmen will be unwilling to regard this or similar suggestions; for every man is formed to his habits. If however masters and medical men would urge an alteration, and if especially boys apprenticed to the trade were taught to work in the posture recommended, tailors would assuredly become much more healthy. The practice of drinking might also easily be reduced, if masters discharged from their employ every man who absented himself a day without proper cause." 18.

We must pass over numerous descriptions of workmen, only selecting a class here and there. We find that CURRIERS and LEATHER-DRESSERS are generally very healthy and long-lived, though subject to the bent posture in the process of shaving. This affects the head. The smell of the leather is not injurious. Compositors are not healthy. The standing posture, Dr. T. observes, injures the digestive organs. Consumption is frequent among them; and we seldom can find any who have attained 50 years of age.

"SMITHS have an employment remarkably conducive to muscular power. The use of the large hammer powerfully excites all the muscles, and especially those of the arms, throwing on them a large supply of blood, and consequently producing their enlargement. Exertion like this, moreover, has a considerable effect on the circulation in general, and the functions with which it is connected. For youths of strong constitution, no labour is better than that of the smith. For those, however, naturally delicate, the exertion is too great, and young men of scrofulous constitution are particularly liable to sink under the employ. Smiths are subject to high temperature, and frequent changes of temperature, but with no obvious injury. They are rarely affected with rheumatism and catarrh. The employ subjects the eye to the annoyance of smoke, and to excitements from the glow of the heated iron. But our examination of the smiths in this neighbourhood does not prove them subject to ophthalmia; nor does it show that vision is impaired by the excitement of the retina. When smiths are ill, the cause is most frequently intemperance. They do not however arrive at great age. We could hear of but one old smith in the town of Leeds." 26.

HOUSE-SERVANTS, from confinement in a smoky town, are seldom healthy. Girls from the country soon lose their ruddy complexion, and suffer more than the natives of the town. COLLIERS have considerable muscular exertion, chiefly in the sitting or kneeling posture, and with the body bent to a very acute angle. They work in an unnatural atmosphere, and with artificial light, exposed to changes of air, and often to wet feet. Sometimes the perspiration is excessive. They are generally spare men, with curved spines and bowed legs. The skin, of course, is loaded with dirt; and when this is removed, the complexion appears sallow and unhealthy. Their eyes appear small, affected with chronic inflammation, and intolerant of light. Colliers are subject to disorders of the head, muscular pains, rheumatism, and asthma.

The author next comes to those employments which produce dust, odour, or gaseous exhalations. He divides these into three classes, namely, where the above substances are not apparently noxious—where they appear to be beneficial—and where they are decidedly injurious.

1. In the first class he places workers in wool and leather, butchers, provision-dealers, cooks, starch-makers, rectifiers of spirit, bricklayers, plasterers, white-washers, wool-sorters, turners, tobacconists, snuff-makers, &c.

All these are exposed to extraneous substances, tangible or gaseous, dispersed through the atmospheres which they breathe, but without any appreciable bad consequences to their health. We shall introduce the following note on smoking and snuff-taking, as a specimen of our author's manner.

"It is amusing to read the opinions on the *use* of tobacco, held a century or two ago by some eminent physicians. Bonetus quotes from Augustinus Thonerus, that a certain court physician, not contented with smoking in the day, would have a lamp with wax-candles and pipes suspended to his bed. Dying a year after and his head being opened, 'res stupenda!' the whole brain was so dried that it scarcely exceeded the magnitude of a nut. Pauvius mentions the dissection of a robust and healthy young man, whose brain was tinged with a black smut. He accounted for the fact when he found the man had been a confirmed tobacco-smoker. Mention is made of a military officer aged 73, who had been addicted to tobacco from childhood. He smoked and chewed incessantly. On dissection, Krantrius found adherent to the cranium much of a dense substance, resembling chimney soot in appearance as well as taste. All the mischief was attributed to the tobacco. Bonetus, Diemerbroeck, and others, thought it necessary to counteract this opinion by the relation of a number of negative cases, as amusing in their details as those I have quoted.

We are often asked if the use of tobacco is injurious? Viewing the question in the abstract, we should answer, Yes. To a person in full health, nothing is required but pure air, food and drink: every thing else is superfluous, and consequently oppressive to the constitution. A narcotic substance must be more than oppressive, because it makes a direct attack on the nervous system. It affects the stomach and the brain. But viewing man as the creature of civilization, subjected hourly to excitement foreign to his nature, and injurious to his health, narcotics, by allaying nervous excitability, may in certain circumstances and constitutions, be really useful. We would not therefore deprive the smoker of his consolation, but we would keep the practice from excess. We would guard especially against that unnecessary potation, to which the practice so frequently leads. Drinking is a great and positive evil; smoking is at best but a slight good. If the two must be associated, banish them as decidedly inimical to health and reason. Smoking can never be proper before the middle period of life. For young men to parade the streets in the evening, with cigars in their mouths, is either affectation or something worse." 33.

The use of tobacco, in fact, is like the use of wine or other stimulant. It is only in excess that the injury lies. In some countries too, where malaria, excessive cold, or inordinate moisture prevails, tobacco, we believe, is positively useful. It is in such countries and localities that we see the cigar most in use—and we should not always despise vulgar habits and customs. They have generally a basis in utility.

We now proceed to those employments where extraneous admixtures in the atmosphere are supposed to be beneficial. The following sentiment contains good sense.

"To assert the existence of such an effect may seem a contradiction to the statement before made, that whatever alters the natural constitution of the atmosphere, must be proportionately injurious. But it should be remembered that injurious agents sometimes counteract each other. Medicine is in itself an evil. Remedies often induce unnatural states, but these states supersede others much more serious and permanent. To man in a perfectly healthy condition, no substance arising from manufacture can be useful; but men living in a large town, and with the habits of civil life, are generally unhealthy; and hence certain vapours or other substances may be decidedly beneficial in exciting their languid powers, or correcting the disposition to disease." 33.

RAPE AND MUSTARD CRUSHERS inhale a peculiar odour from the seeds which they grind. "This seems to act as a stimulant on the nervous and circulatory system; for men fresh to the employ find their appetite and vigour increased." The heat of the room is considerable—often 80° in Summer; and though addicted to intemperance, the men employed in oil-mills are generally healthy.

BRUSH-MAKERS inhale a good deal of the odour of pitch, which appears to have a sanative effect in bronchial affections, chronic catarrh, and asthma. "The workmen are generally free from disease."

GROOMS AND HOSTLERS daily inhale a large quantity of ammoniacal gas generated in the stables. "This appears beneficial rather than injurious."

GLUE AND SIZE BOILERS are exposed to strong putrid and ammoniacal exhalations from the decomposition of animal refuse. The stench of the boiling and drying rooms is indeed well known to be highly offensive, even to the neighbourhood. Yet the men declare it agrees well with them—nay, many assert that on entering this employ, they experienced a great increase of appetite and health. All the glue and size boilers we saw, were remarkably fresh-looking and robust. Though exposed to frequent and considerable changes of temperature, to sudden changes also from an atmosphere of hot vapour to the dry cold air, they are not subject to rheumatism, pulmonary inflammation or catarrh. The only complaints we could hear of, were occasional pains in the loins and limbs, attributable to posture and exertion." 35.

TALLOW-CHANDLERS, who are exposed to an offensive animal odour, enjoy good health, and attain considerable age. It was remarked that during the plague in London, this class of men suffered much less than others.

TANNERS, it is well known, are subject to disagreeable odours. They work in an atmosphere largely impregnated with the vapour of putrifying skins; and this, combined with the smell of lime in one place, and of tan in another. They are exposed constantly to wet and cold. Their feet are scarcely ever dry.

Yet they are remarkably robust; the countenance florid; and disease almost unknown. Tanners are said to be exempt from consumption; and the subject has of late been repeatedly discussed in one of the medical societies of London. We have carefully enquired at several tan-yards, and could not hear of a single example of this formidable disease. We do not find *old* men actually in the employ; and the reason assigned is, not the decline of health, but the inferiority of men past middle age, in undergoing the labour of the process. Persons however in advanced life, yet healthy, are found in other occupations, who have before been for many years in the tan-yards, and have not apparently suffered from the long continued exposure to their offensive odour. Hence we may infer that this employ, while it invigorates the constitution in youth and middle age, does not sensibly shorten life; does not, in other words, give temporary health at the expense of premature decline.

Ramazzini tells us that at Padua the tan-yards were permitted only in the suburbs. Here also, as the stench would be considered a nuisance, tan-yards are at the outskirts. As a matter of medical police, however, we see no occasion for their exclusion from the town." 36.

The 3d class includes those employments which are actually deleterious to health—and unfortunately they are numerous.

CORN MILLERS are placed first on the list by the author. They breathe an atmosphere loaded with the particles of flour, and suffer considerably.

The mills indeed are exposed to the air—the men are not crowded—and the labour is good. Yet millers are generally pale and sickly, with defective appetites, and indigestion. Many of them are annoyed by morning cough and expectoration, and some are asthmatic at an early period of life. The average quantity of air thrown out at expiration, among ten men that were examined, was seven pints. The evils of the employ, the author thinks, might be much diminished by exercise in the open air; but in this as in other employments, the men are very careless of their health. They think nothing about injurious agents till their health is distroyed. MALTSTERS appear to be still worse off than the millers.

"WORKERS IN FLAX, from their number and the effect of their employ, deserve particular attention. In the Flax-mills, all the departments, with the exception of the spinning and reeling, produce dust. The roving-rooms have a little, and the dry-house has a varying quantity. The carding-rooms are also dusty; but the worst department is certainly the heckling. This, in some mills, is carried on by hand, and in such the rooms are greatly clouded. In other mills, where the process is effected by machinery, the quantity of dust is considerably less. Still, however, it is such that a visiter cannot remain many minutes without being sensible of its effects on respiration. Children and a few overlookers are here the operatives; but in the old mode, I believe, men only are employed. Though attention is generally paid to ventilation, and the rooms for the several departments are spacious, they are not sufficiently lofty. A suffocating sensation is also often produced by the tubes which convey steam for heating the rooms. Persons in the dusty departments are generally unhealthy. They are subject to indigestion, morning vomiting, chronic inflammation of the bronchial membrane, inflammation of the lungs, and pulmonary consumption. The dust, largely inhaled in respiration, irritates the air-tube, produces at length organic disease of its membrane, or of the lungs themselves, and often excites the developement of tubercles in constitutions predisposed to consumption. There is little doubt that a considerable quantity is also swallowed with the saliva, and deranges, in a greater or less degree, the functions of the stomach." 40.

Very few old persons are found in any of the departments of the flax-mills. Of 1079 persons employed in one large establishment, only nine could be found above the age of 50 years.

We must now pass over a great portion of the work, since the subjects are so multifarious as to render it impossible to preserve any thing like a chain of analysis. There are some observations, however, on the effects of long-continued heat, alternated with cold, which are deserving of notice.

"In reference to catarrh in general, I might urge, were it part of my subject, that this disorder is often prevalent when the atmosphere is comparatively mild, and when there have been no great variations of temperature. I might also urge the fact of bed-ridden persons being attacked with catarrh, when no change has been made in the temperature or ventilation of their rooms. I might also repeat the general remark, made in a former page, that those persons who take most care to avoid atmospheric transitions, are not least, and are often indeed most, liable to catarrh and bronchitis; while those, on the contrary, who expose themselves most freely, are least and most rarely affected.

The inhabitants of this country are brought up from childhood in the fear of taking cold. It is the bugbear of our youth; it haunts us through life. Few have any distinct ideas of the nature of this frigorific agency: few have fairly examined their experience: and few indeed are aware of the fallacies of experience; scarcely any have made either direct experiment or close observation. Yet all speak with decision on the subject. Hence workmen,

when interrogated on the effects of change of temperature in producing coughs and catarrhs, commonly reply from their prejudices, rather than their observation. 'We *must* take cold: we are always in heats and cools.' Bnt on cross-questioning them, I have not been able to satisfy myself, that men subjected to the greatest changes, are especially liable to catarrhs and bronchial inflammation. We do not hear more coughs in the Foundries, Dry-houses, or Press-shops, than in other places. The men, it is clear, are not particularly subject to consumption; and if the heat or transitions of their employ frequently excited bronchial inflammation, a pathologist would surely expect the prevalence of that fatal disease." 80.

Nothing can be more true than that constant and regular exposure to atmospheric vicissitudes is the only preservative against their effects. The more quickly repeated these vicissitudes are, the less danger there is from them. It is where the intervals between the vicissitudes are long, and the vicissitude great in range, as in Italy and many other countries, that the detriment is considerable, because the alternations of temperature are not rapid enough to accustom the human machine to their occurrence.*

Our author next proceeds to the second great class, beginning with a very numerous one, shop-keepers and dealers, who live a sedentary life, but are not particularly prone to disease. The want of pure air is the chief cause of their ailments. Commercial travellers have great advantages in this respect; but they destroy their constitutions by intemperance.

MERCHANTS AND MANUFACTURERS. These, as far as Leeds is concerned, spend most part of their time in the counting-house or the mill, subjected not only to impure air, but occasionally to dust and effluvium from the manufacture. These evils are occasionally diminished by sleeping in the country, or at a distance from the manufactory or warehouse; but generally these people keep near to the seat of their business—eat their meals in a hurried manner, as if they every moment expected to be summoned by a stage-coach driver—and take but little exercise in the open air. Other mercantile men, though they spend more time at their meals, are engaged in close thought; so that they taste neither their food nor their drink. The nervous energy required by the stomach for digestion, is abstracted by the mind. They think when they ought to eat. The animal operations are sacrificed to calculation, speculation, and commercial arrangement. The state of the bowels is also neglected, and foundation for serious disease laid.

"But of all agents of disease and decay, the most important is *anxiety of mind*. When we walk the streets of large commercial towns, we must be struck with the hurried gait and care-worn features of the well-dressed passengers. Some young men indeed we may remark, with countenances possessing natural cheerfulness and colour, but these appearances rarely survive the age of manhood. Cuvier closes an eloquent discription of animal existence and change, with the conclusion that 'Life is a state of Force.' What he would urge in a physical view, we may more strongly urge in a moral. Civilization has changed our character of mind as well as of body. We live in a state of unnatural excitement; unnatural, because it is partial, irregular, and excessive. Our muscles waste for *want* of ac-

* See an examination of this subject in Dr. Johnson's "Change of Air," Part the Third, on the Climate of Italy.

tion: our nervous system is worn out by *excess* of action. Vital energy is drawn from the operations for which nature designed it, and devoted to operations which nature never contemplated. Though we can scarcely adopt the doctrine of a foreign philosopher, 'That a thinking man is a depraved animal,'—we may without hesitation affirm, that inordinate application of mind, the cares, anxieties, and disappointments of commercial life, impair the physical powers, and induce premature decay. The various disorders, generally known under the name of indigestion, disorders dependent on a want of circulation of blood through the bowels, biliary derangements, constipation, and headach, are well known to be the general attendants on trade, closely pursued. Indeed in almost every individual, this absorbing principle produces one or other of the various maladies to which I have alluded. More marked is the effect, when anxiety is added. This greatly reduces the functions of the stomach; it produces flatulency, and often diarrhœa; it sometimes affects even the kidneys; it almost always, when long continued, produces permanent disease of the liver. Cancer of the stomach, moreover, and other malignant diseases, occur most frequently among the victims of mental depression and care." 85.

It is in vain that we tell men to divest themselves of care, and attend to their health. They cannot do it!

Our author makes many judicious observations on professional men and their avocations. Clergymen have alternations of study and exercise in the open air; but the latter is often on a very confined scale, their avocation preventing them from participating in sports or amusements.

"PRACTITIONERS of MEDICINE and SURGERY must next be noticed. Our office requires that a considerable portion of time be daily devoted to study, and the rest to professional visits. These, of course, afford exercise in the open air, and thus tend to invigorate the health,—while, on the contrary, the application of mind to study and research, tends to impair it. Night-calls are generally thought to be very injurious. I think the evil less than the public and the profession suppose; for, if we observe those who have for thirty or forty years been much engaged as accoucheurs, we shall find them as robust as others. Anxiety of mind does more, I conceive, to impair health, than breach of sleep, nocturnal exposure, or irregularity in meals. The body suffers from the mind. That sense of responsibility which every conscientious practitioner must feel,—the anxious zeal, which makes him throw his mind, and feelings, into cases of especial danger or difficulty,—break down the frame, change the face of hilarity to that of seriousness and care, and bring on premature age.* As a profession, we are by no means healthy. Indigestion is general, and diseases of the lungs and blood-vessels are frequent. I am aware that several instances of great age will be immediately remembered; but while referring to cases like these, we forget the number who die in middle age and youth. Inquiring occasionally after those whom I knew as students, I have been often surprised at the number of deaths. Among the youth of our profession, in an especial manner, is the mortality great. Pupils sent to distant medical schools at the end of their apprenticeship, and thus placed suddenly in a scene of dissipa-

* "Ramazzini speaks very differently on the subject. He says that medical practitioners are comparatively exempt from ordinary diseases, in consequence of their good exercise, and their *hilarity* of mind, when they go home with their fees in their pockets;—'Dum bene nummati lares suos repetunt." He adds, that medical men are never so unwell, as when no one else is unwell. The professor remarks, however, that they are subject to hernia from going up stairs, and catch dysentery from sitting beside their patients!"

tion, without governor or adviser,—mixing too with a large mass of youths similarly situated,—suffer from the evils and disease, which irregularity produces. While the steady youths, attending the hospitals, dissecting, hearing various lectures, and preparing for examination,—obliged, too, be it remembered, to acquire, in a couple of winters, that various knowledge which ought not to be acquired in triple the time,—are severely injured by the great application of mind. Hence, the students who come out of the lecture-room at the end of the session, we should scarcely recognize as the healthy young men, who entered it a few months before. Complaints of the stomach and bowels are common, and pulmonary consumption is by no means infrequent. The effects of wounds in dissection are well known to be very serious, and often fatal." 92.

Dr. Thackrah makes some pertinent remarks on education at Leeds. The children are crowded in rooms of disproportionate size, and the air is consequently contaminated. The "MARCH of INTELLECT" is too rapid—and the motions of the body are neglected. "Learning, or what is termed learning, absorbs the nervous energy which is necessary for the body." The young females are still worse off than the boys. It is vulgar to use the limbs as Nature designed—it is vulgar to take the food which Nature requires—and young ladies must not do any thing that is vulgar. Well! They must be contented to wave the vulgarity of health also.

"When girls leave school, the same system of muscular quietism is enforced. They must keep up their accomplishments by practice. Several hours a day they must devote to music, and frequently a considerable time to the more injurious occupation of drawing; most of the remaining day, they spend in finger occupations. Little time is devoted to exercise in the open air, and the exercise they *do* take is such as to chill, rather than invigorate the circulation. Need I urge that half the disorders of the young arise from the errors I have mentioned? Need I advert to remedies and preventives? They are obvious." 95.

Dr. T. adverts to the learned professions, whose sedentary avocations (Lawyers for example) are injurious to health. "Many of the legal profession indulge too much at the table; and almost all neglect the state of the bowels."

But here we must close our notice of Dr. Thackrah's work, which deserves the attention of the profession generally, and particularly of those residing in large cities and manufacturing districts.

III.

COMBE'S PHRENOLOGY.

A SYSTEM OF PHRENOLOGY. BY *George Combe*. Third Edition. Anderson, Edinburgh; Longman, London; pp. 724, seventy-one Figures. MDCCCXXX.

"Res non verba quæro."

OBSERVING the great increase of phrenologists yearly, and the extraordinary diffusion of their doctrines, we naturally conclude that the charge must be unjust, which represents phrenology as a deceptive system, contaminated with an excess of folly, mischief, and irreligion: analogy and experience, history and philosophy, abound with evidences of the improbability—that *very many* intelligent, upright, and learned persons should become so infatuated as to approve the tenets of such a system: entertaining this sentiment, therefore, we have more than once * endeavoured to procure, for the phrenological doctrines, a fair hearing and judgment.

Dr. Gall discovered phrenology: Dr. Spurzheim improved it vastly: Mr. Combe has matured it; and in his "*system*" its principles maintain the precision and dignity of pure inductive science: every page of his elaborate and instructive work, indeed, exhibits the admirable features of a mind evidently powerful, discriminative, and just.

We have said heretofore, and we now repeat deliberately, our entire persuasion, that phrenology includes not a few subjects most worthy of contemplation and research for the medical philosopher: it reveals very beautifully many of the mysterious re-actions of body and mind, in health and disease. Beyond all others, the medical observer enjoys frequent and valuable opportunities of ascertaining the exactness of the phrenological proposition—that the brain constitutes a system of distinguishable organs, every ONE of which, as a material instrument, co-exists, and co-operates, with a determinate ONE of the mind's aggregated faculties; and that, consequently, from structural or functional lesion, of *one*, *some*, *or several* of the cerebral organs, the MANIFESTATIONS of *one*, *some*, *or several* of the correlative mental faculties, may be deranged, and thus originate modifications of insanity. Now, were it for no higher object than that of gaining a mere speculative accomplishment, we should essay to cultivate a knowledge of the mind's faculties and the organ proper to each of them in the brain, according to their specific distinctions in phrenology, (*for, like other sciences, this cannot be tried fairly except by its own laws,*) so as, with this knowledge, we may be enabled to mark the altered *manifestations* of faculties in disease and insanity, and to ascertain the condition of corresponding organs as this shall be revealed by necrotomical investigation. Numerous and diversified observations, in this way, will prove or disprove the phrenological doctrine, promote a true mental philosophy, and

* Med. Chirurg. Review, March, 1823; March, 1824; and October, 1826.

introduce greater precision into the details of cerebral anatomy, physiology, and pathology.

Mr. Combe, in all his writings, discusses the questions having relation to the phrenological science, in a manner unusually explicit and generous: he distinguishes its principles also with illustration and evidences unusually appropriate and conclusive. On this occasion, we are not required to examine anew his doctrines, and their inherent tendency to facilitate education, metaphysics, morals, and legislation: nevertheless, we may particularize—as subjects adapted to enlighten medical students—his sections on *plurality of the mental faculties and their organs—size of organs, their health, exercise, temperament, and disease—functions of the nerves and spinal marrow—the brain, cerebellum, and skull—integuments of the brain—bones of the skull—frontal sinus—length, breadth, and forms of the cerebral organs—brains of the lower animals—national character and developement of brain—materialism—and injuries of the brain*—all which subjects are elucidated with an impressive and perspicuous eloquence, every-way dissimilar from the vapouring of those sciolists who, with the blaze of fancy, obscure the brilliancy of TRUTH.

Such, then, being the character of Mr. Combe's philosophy, and such the topics in his "*System*" for which we solicit the regard of our profession, we would say emphatically to the medical inquirer desirous of investigating the relations of man's organic and mental natures—bring with you a mind clear from all preconceptions and hypothetical notions; extricated from the debasing trammels of authority; unblighted by the poison of prejudice: never impute error to doctrines you have not taken due means to understand; never seek to repel the validity of inductions you yourself do not know to be defective, and never question the accuracy of experiments you have not repeated and found to be inexact: while occupied with the examination of notional or demonstrable questions, weigh your thoughts well; scan all arguments with composure and manliness; consider deeply in what degree your ultimate sentiments may influence truth; and never, never contend exclusively in a discussion for the victory; whoever has, at any time, suffered himself to be so bewildered by the tumult of headlong or ambitious emotion, as to enjoy the vain-glory of triumphing in a speculative wrangle, has as certainly been doomed, in after-days, to endure the bitterness of repentance for having been the means of darkening counsel by words without knowledge: finally, in the exercise of reflection and judgment, maintain that mental and moral liberty which the CREATOR destined to be the high distinction of our race; with himself rests the cause when, in thought and action, man is most free—free as the billows of the great ocean, unfettered as the lightning of the sky.

IV.

Dr. Elliotson on Diseases of the Heart.

[Lecture the Third and Last.]

On Diseases of the Substance of the Heart.

We frequently observe the parietes of the heart thickened or dilated, during or subsequent to attacks of acute rheumatism.

"The increase of the heart's substance, is, no less than the diseases of the valves, I am convinced, with Bouillaud, Bertin, Andral, and others, generally inflammatory. I have witnessed, after acute rheumatism, a constant and severe pain in the region of the heart, palpitation, and at length death; and found the left ventricle thickened, without any other morbid appearance in the organ, and here, no less than when the ordinary anatomical results of inflammation were visible, it was impossible not to consider the change inflammatory. On comparing an hypertrophied left ventricle with a healthy specimen, M. Chevalier, a pupil of Vauquelin's found, under the microscope, that its fibres were redder; and, a portion of each being steeped in a separate quantity of distilled water, the hypertrophied portion reddened the water more than the other, and when taken out was still the redder of the two. On being put into boiling alcohol, it proved to contain less fatty matter. Indeed an hypertrophied heart, if undilated, is always in the affected portions redder and firmer than usual, and its coronary arteries are enlarged, sometimes enormously. Besides, as hypertrophy is a common accompaniment of chronic inflammation of the outer or inner membrane of the heart, no doubt can exist upon the subject. Indeed its essence, being excessive nutritive action, cannot but be in some measure inflammatory. It is unquestionably produced in some cases by obstruction in the opening leading from the cavity whose walls are thickened, the difficulty giving rise to evident great muscular effects, and consequently to augmented circulation, of the organ. But even here it may be to some degree absolutely inflammatory, because the lining membrane of the cavity has generally been in an inflamed state, which in truth was the cause of the valvular obstruction.

Hypertrophy of the left ventricle is often found with disease of the lining membrane of the aorta; sometimes coexistent with the true and false aneurism of the aorta, but not unfrequently is the sole diseased appearance.

Hypertrophy is frequently attended with dilatation, and more so perhaps when an obstruction to the egress of the blood from the diseased compartment exists. Dilatation often occurs alone, especially in the auricles, from this cause. But, like hypertrophy, it is sometimes the only morbid circumstance discernible, and therefore not so easily to be explained. The dilated portion, we shall find, is occasionally thin and soft, and the reason of the dilatation is then evident.

Hypertrophy is considered by Bertin, accordingly as the compartment of the heart is simply thickened, without any change in the dimensions of the cavity; as it retains its natural thickness, but is dilated, in which case there must be an hypertrophy or preternatural quantity of substance, or it would have become thinner; and thirdly, as it is not merely thickened, but its cavity diminished. He designates these three forms simple hypertrophy, eccentric hypertrophy, and concentric hypertrophy.

The second variety, eccentric hypertrophy, or increase of substance and dilatation united, was described by Senac, Morgagni and Lancisi, and denominated by Corvisart, active aneurism of the heart. It is the most common of the three, and the excessive deposition must have taken place in the direction of the surface. The first variety, simple hypertrophy, in which the dimensions of the cavity are unchanged, and the depositioa takes place

also in the direction of the surface; and the third, the concentric, in which the cavity is diminished, and the deposition must have occurred in a vertical direction—at a right angle with the surface, were first described in 1811, by Bertin. In the concentric, the cavity is sometimes so small that it will scarcely contain the shell of an almond.

Every heart with thick parietes and a small cavity, however, is not perhaps an example of concentric hypertrophy. A violent contraction at death might probably produce these effects. But in such a case, the bulk of the organ would be proportionably lessened. To be justified, therefore, in declaring the existence of concentric hypertrophy, not only the parietes should be thick and the cavity small, but the bulk natural.

In the simple and concentric hypertrophy of the left ventricle, the thickness is sometimes double, or even triple, what is natural: the natural thickness of the walls of the left ventricle are about half an inch.

The thickening of the left ventricle is generally greatest at the base, in the first and second varieties, and lessens towards the apex. In the concentric, there is usually as much thickening at the apex as at the base.

The septum of the ventricles, and even the columnæ, carneæ, participate in the increase of substance.

The thickening is sometimes unequal in different parts, both in the case of the left ventricle and of any other part that may be hypertrophied.

The right ventricle, when not participating in the disease, is comparatively so small, and reaches so short a way down, that it looks like a mere appendage, or as if included in the walls of the heart.

The left ventricle is the most usual seat of hypertrophy. When the disease occurs in the right, the thickening is seldom, if ever, so great, and is generally more uniform: but the columnæ carneæ, it is said, are generally more enlarged in proportion.

Sometimes both ventricles are hypertrophied; sometimes one is hypertrophied, in one or other of the three varieties of the affection, while its fellow is only dilated.

Hypertrophy rarely affects the auricles; and still more rarely unless other disease exists in the heart. It is generally united with dilatation of the auricle. Laennec and many others never witnessed an instance of pure hypertrophy of an auricle.

If the walls of all the cavities of the heart are affected with hypertrophy and dilatation, or even both ventricles only, the heart may acquire an enormous size. Under these circumstances its form usually becomes rounded, its apex being effaced, and it lies almost transversely in the chest." 26.

In dilatation of the heart, the natural thickness of the parietes may be retained, or their thickness may be augmented; but there is a third variety of dilatation—the thickness may be diminished, and this used to be called passive aneurism. "The first of the varieties,—that in which the dilated parietes retain their natural thickness, appears to me, I confess, as true an hypertrophy as the second in which the thickness is increased, because dilatation would inevitably occasion attenuation, were not an addition of substance made." Two or even three of these varieties may exist in the parietes of the same cavity. Laennec regards original disproportion of the cavities as the most powerful cause of dilatation; but a very common cause undoubtedly is obstruction to the progress of the blood from the cavity, and the source of this obstruction may be seated in another cavity—in one farther forward relatively to the blood's course. The auricle is frequently dilated and not the ventricle, when there is an impediment at the opening of the aortic or pulmonary artery:—and, when the difficulty is at the aortic

opening, it is curious that it is sometimes the right, not the left auricle that is dilated. The obstacle may arise from a diminution of an opening, or from diminution of another cavity, as of the left ventricle. A permanent patency of the auriculo-ventricular opening, by which too much blood attempts to rush back into the auricle, will create marked dilatation of it. The auricles, from their thinness, are more subject to dilatation than the ventricles—and the right is more so than the left, from the frequency of obstruction in the lungs. There is reason to believe that the right auricle often becomes dilated in the dying state, especially when death is lingering, from impediment to the passage of blood through the lungs. Let us now inquire into the signs of hypertrophy of the heart, as sketched by our author.

"When the heart is hypertrophied, an unusually strong impulse is given in the situation of the part affected, and the sound usually heard there is diminished,—becomes a sort of murmur, and in severe cases it is not heard at all. The contraction takes place more slowly than in the healthy state, and, in the hypertrophy of the ventricles, little or no interval of repose occurs after the auricular action. When the heart is dilated, the reverse happens:—there is far less than the usual impulse in the situation of the part affected, and the sound usually heard there is augmented and is not merely louder but clearer than natural. In dilatation of the ventricles, their action takes place more rapidly than in the healthy state, and little or no interval of repose occurs equally as in hypertrophy.

In hypertrophy of the left ventricle,—its most common seat, a strong impulse is felt between the cartilages of the fifth and sixth left ribs, and the action of the auricles is very short. In hypertrophy of the right ventricle, this strong impulse is felt at the lower part of the sternum.

If the difference is considerable, it is easily discovered by the greater force with which the stethoscope is repelled in the affected side, when applied to the cartilages and the sternum in succession. Where the difference is less, it may, I think, be more easily ascertained, perhaps, by examining both sides at once in placing the hand longitudinally over the cardiac region, when the stronger impulse against the fingers lying over the left or the right half of the region will presently be noticed. In health, the impulse in both halves is equal. Should hybertrophy affect both ventricles at once, the excess of impulse in both halves will determine its existence in both, and the equality or difference of the morbid impulse will demonstrate its equality or difference in the two ventricles.

Hypertrophy of the auricles must be very considerable to afford an impulse. This, however, will be felt on the right or left superior half of the cardiac region, according to the situation of the hypertrophy.

The situation of the loud and clear sound of dilatation equally agrees with the seat of the dilatation.

It is wonderful how accurately we can determine the seat and nature of these diseases. If due attention is given and the symptoms carefully investigated, a physician may pronounce with certainty, frequently even at the first visit, that such a ventricle or both are hypertrophied or dilated, or the two in opposite states; that such an auricle or both are hypertrophied or dilated, or the two in opposite states,—no less than that an opening in a particular cavity is deranged: and an examination after death will verify his assertions. Laennec considers these results of auscultation, when well marked, infallible, and so I believe them. A good ascultator will never object, after making a full investigation, to write down his opinion and deliver it to another for the purpose of being read at the autopsy.

When hypertrophy and dilatation coexist in the walls of a cavity, the two sets of auscultatory signs are blended, and those of hypertrophy or of dilatation predominate accordingly as either state predominates.

In general the hypertrophy exceeds the dilatation; for, not only do we continually see an increase of thickness with dilatation, but, however extensive the dilatation, if the natural thickness is undiminished, nay, even if it is diminished but not in proportion to the dilatation, hypertrophy must still exist.

In these compound cases, therefore, the sign of hypertrophy,—the preternatural impulse, is generally the more prominent phenomenon, and I own myself to have repeatedly pronounced a case to be one of hypertrophy, when the cavity was likewise to a certain degree dilated; the dilatation, however, being much inferior to the hypertrophy, and the injury to the system arising not from the dilatation but from the hypertrophy.

This combination is every day seen in the left ventricle, the great disease of which is hypertrophy, but with its hypertrophy there is generally more or less dilatation.

When the left ventricle is severely affected in this two-fold manner, its violent pulsations are felt not merely in the left lower half of the cardiac region, but also under the sternum, and even to the right of this bone. For the growth of the diseased ventricle pushes the right outwards and backwards, and occupies its place as well as the left side. But there is violent impulse even in the left half of the cardiac region, proving hypertrophy of the left ventricle, and there is a dull sound on striking the sternum, from the presence there of the enlarged left ventricle.

The cardiac region of the front of the chest corresponds with the lower third of the sternum, and the cartilages of the fourth, fifth, sixth, and seventh ribs, thus having a right and a left half. The right or sternal half naturally sounds clear on percussion, and even under dilatation of the right cavities: but enlargement of the heart from hypertrophy and dilatation, or the deposition of solid or fluid upon or around the organ, makes it sound dull or dead. The left or costal half of the cardiac region naturally sounds rather dull in most persons, and even dead in fat, anasarcous, and muscular persons, except at the highest—the auricular part, where some hollowness of sound is almost always heard, unless in enormous dilatation of the auricles, such as exist only with constriction, Laennec says of the left auriculo-ventricular opening.

It is in some of these instances of combination of the two affections in the left ventricles that we frequently see those dreadful cases of violent palpitation and of throbbings of the arteries: and for no other reason, I presume, than that, in these, hypertrophy is carried to the highest pitch; for when, notwithstanding extensive dilatation, the walls are thickened, the quantity of additional substance must be enormous.

Towards the close of even this variety of hypertrophy, this impulse is often much reduced, and the heart sometimes grows soft, so that the pulse is weak, and the morbid action of the heart recognized only in the cardiac region. The occurrence of pneumonia may also obscure the stethoscopic signs while it lasts.

A considerable dilatation of the heart necessarily causes a dead sound to be heard more extensively than usual on striking the cardiac region with the ends of the fingers, and M. Piorry assures us, that, if a hard elastic substance is interposed at the time between the chest and the fingers, such a distinctness of sound is produced, that the size of the portions of the heart immediately under the sternum and ribs may be ascertained with the greatest nicety." 27.

The ascultatory signs are the only accurate means of judging in these cases. The pulse, the respiration, the state of the veins, of the cellular membrane, of the countenance, &c. may all suffer; but the changes induced are too varied for any reliance, and may be produced by many other causes besides hypertrophy of the heart.

In hypertrophy, especially with dilatation, the pulse is frequently full, causing head-ach, and even apoplexy, if the vessels of the brain be weak

or diseased. But when the opening of the mitral or aortic valves is narrowed, the pulse may be very small, while the left ventricle is hypertrophied and beats violently. In mere hypertrophy, too, it is small, if the cavity of the ventricle be diminished. It is curious that irregularity of the pulse is so common to some people, that it only becomes regular in a state of excitement or disease. In others the irregularity of the pulse depends on disordered states of the head, but more especially of the stomach. Tendency to faintings may be a purely nervous affection, or from sympathy. Violent action of the heart and arteries, as in nervous palpitation, will be distinguished from hypertrophy, by being only temporary—and by being a general increased action of all the chambers of the heart, whereas hypertrophy almost always affects one side more than the other.

"Again the symptoms produced by a diseased heart will sometimes so remit, either from a decline of the ordinary irritation of the heart, or the cessation of some temporary irritation of another organ, as to create a doubt in the mind of any but an auscultator, that organic disease of the heart had really existed. Even the dropsy, frequently attendant upon organic disease of the heart, subsides and returns, without evident reason, or accordingly as the patient is quiet in body and in mind, and careful with respect to diet and vicissitudes of temperature, or the reverse.

Frequently, too, auscultation will disclose cardiac disease, and the symptoms may not increase for many years, so that the auscultator may be ridiculed, and no organic affection be admitted; when, from unfavourable circumstances or the progress of life, the disease may suddenly begin to augment, and dissection disclose some organic affection. Many persons die of organic cardiac disease after forty, who, for many years of their lives; had merely a little short breath with occasional palpitation, and swelling of the feet, and were told that they were free from all disease of the heart. Indeed Laennec was convinced, that congenital disproportion of the cavities of the organ was one of the great predisposing causes of its dilatation. In slight cases of the blue disease, where a small direct communication existed between the right and left sides of the heart, I have seen the symptoms, after being stationary during the whole of infancy, adolescence, and the earlier part of manhood, at once augment; from the sudden enlargement, I presume, of the preternatural opening, either through the enlargment of one of the cavities between which it formed a communication, or the occurrence of narrowness of one of the natural openings of the heart farther on." 28.

The general symptoms, however, are never overlooked by the judicious auscultator, for they are valuable auxiliaries in the diagnosis. Dr. Elliotson makes several judicious remarks on those partial aneurisms of the heart which we occasionally though rarely observe. Aneurism is a disease of arteries, never of veins—and it is remarkable that this disease has never been detected but in the left, or arterial side of the heart—and never but in the ventricle.

"This circumstance accords both with the general observation of the greater frequency of all diseases on the left than the right side of the organ, and in the ventricle than the auricle; and with the other fact of the individual disease—aneurism, being an arterial disease, or rather, I would say, a disease of parts containing decarbonised blood, for the pulmonary artery, containing black blood, has not, I believe, yet been seen the seat of aneurism.

As far as appears known, all the instances, but one, have occurred in adult males, and *arterial* aneurism occurs eight times more frequently in males than in females.

This cardiac affection is the first of those in which auscultation renders no assistance. All the cardiac diseases in which it is useful have been considered. The general symptoms which occur may well therefore be supposed, by those who know the value of auscultation, to leave the nature of the disease in doubt.

Dr. Baillie says the symptoms 'are similar to those which belong to aneurism of the arch of the aorta.' And what does Dr. Baillie enumerate as the symptoms of aneurism of the arch of the aorta? First, difficulty of breathing. But that may arise from a thousand causes in the heart, lungs, or other parts, and has been absent in this disease. Secondly, more or less of pain in the aneurismal tumour, or some other part of the chest. But here is no tumour, and pain in some other part of the chest would certainly never lead us to a knowledge of the disease, but rather to a misconception of its seat and nature. The pulse, he says, is sometimes irregular; but immediately subjoins, that 'often no irregularity can be felt in it.' The chief symptoms he pronounces to be 'a strong pulsation in the chest, commonly visible to the eye, when the chest is exposed to view.' But, again immediately subjoins, that he has felt the same kind of pulsation in other cases: for example, in adhesion of the pericardium, slight pericarditis with slight hydro-pericardium, and in ordinary morbid enlargement of the heart. Indeed, no strong pulsation, except palpitation of the heart, and in most cases not even that, has occurred in this affection. The most decided characteristic of the disease, however, belonging only to aneurism, he regards as a strong pulsating external tumour when the aneurism has attained a large size. But aneurism of the heart rarely attains a large size, and I do not know that it ever produced an external tumour. And after all a diagnosis would be required between aneurism of the heart and of the arch of the aorta.

It therefore really appears to me, and I say it with all the respect due to an amiable and industrious man, that Dr. Baillie would have done better in saying, that there were no particular symptoms of the disease, especially as he never met with more than one example of it.

In Talma, who died of strangely neglected stricture of the rectum, no symptoms had led to a suspicion of cardiac disease. In a patient of Dr. Johnson's—General Kidd, death took place suddenly from rupture of the aneurism, without any previous symptom of its existence. The same happened in Dr. Reynaud's case. In a patient of Cruveilhier's, severe asthmatic paroxysms took place, with a sense of constriction, particularly about the heart, and a peculiar sensation in the arm-pits. These symptoms, together with hardness, fulness, and occasional intermittence of the pulse, and suffusion of the face, led to the suspicion of organic disease in the heart. But ausculation at that time was not yet cultivated. The hardness and fulness of the pulse arose from hypertrophy of the left ventricle.

In the case which supplied this preparation, the patient, a man aged thirty-two, was admitted into St. Thomas's Hospital on March 2, 1826, on account of palpitation of the heart, especially on moving or lying down; inability to lie in any other position than on his back; sudden starting up during sleep; constant dyspnœa, and cough, with a little mucous expectoration. The pulse was regular, not much quicker than natural, but exceedingly weak.

He had discharged large quantities of tape-worm by means of oil of turpentine, and suffered severely from rheumatism the preceding winter and was still complaining of it. These symptoms gave no information as to the nature of his disease; they led to a suspicion only of some affection of the heart.

I was not at that time well practised in auscultation, but found the ventricular impulse of the heart very strong all over the right half of the cardiac region; and therefore concluded that the disease existed in the right ventricle.

In two months he became much better under rest and moderate antiphlogistic treatment, experienced less palpitation and dyspnœa, could lie on both sides and was stronger. The

ventricular action was no longer strong on the right side, but was now both loud and strong in the lower part of the left. I could thus form no opinion as to the seat or nature of the disease.

The dyspnœa after this time gradually increased for a fortnight, and he then died.

On opening the body, two aneurisms were found at the upper part of the left ventricle; but on the right ventricle was a tumour or large tubercle, the size of a pigeon's egg, with several smaller ones.

The force originally observed in the right half of the cardiac region was now explicable, although the aneurisms sprang from the left ventricle. The aneurisms, when first I saw him, were probably not large enough to occasion so considerable symptoms as the tumour on the right ventricle; but, as they increased, decided symptoms necessarily arose in the left half of the cardiac region, much exeeeding those produced in the right by the tumour." 29.

Dr. E. has lately met with a case of an auricle, a part he had never before seen affected in this way. There was hypertrophy and dilatation of the left ventricle, with extreme cohesion and ossification of the mitral valve, the auriculo-ventricular opening being proportionally reduced. The sinus of the left auricle formed an aneurism of large size, with very dense layers of fibrine for its walls, which had reduced the cavity to a very small capacity. The action of the ventricles had been strong, loud, and extended, with a dull sound on percussion of the cardiac region. The pulse had been feeble and the breathing very difficult. The legs had swelled. The feebleness of the pulse, notwithstanding the strong action of the left ventricle, arose from the small quantity of blood discharged into that ventricle for delivery into the aorta.

"Hypertrophy of the heart, I have stated, appears of an inflammatory nature. With it is generally united some degree of induration. Sometimes induration exists alone, or in great proportion to the hypertrophy. I believe it is attended by palpitation, a full and rather hard pulse, and frequently by pain in the heart. One must suppose it inflammatory. On the other hand, the substance of the heart is sometimes softened, and the pulse and action of the heart are then feeble and frequent, dropsy takes place, and a disposition to fainting, and the heart is generally found also dilated, and of a deeper or paler colour than usual. This state also may be the result of inflammation, as softening of other organs beyond all question frequently is. Yet softening of the heart and all other parts, and even gangrene, probably may occur without inflammation; and sometimes when it occurs with inflammation, the inflammation may not be the cause, but only one of the circumstances of a peculiar condition.

Very acute inflammation of every part generally, I believe, induces a softened state; and, although a softened state may also result from a chronic inflammation, chronic inflammation generally causes induration. This is seen in regard to the various muscles of the body, as well as to the various internal organs.

Great as is the modern improvement in pathology by the knowledge that many diseases are essentially, or to a degree, inflammatory, which were formerly not regarded so, and great as is the improvement in medical practice by the administration of antiphlogistic measures in such cases, I am satisfied that we are now rather too prone to believe affections nothing more than inflammations, and to treat them only as such,—that many so regarded are not at all inflammatory, or have inflammation, not as a fundamental state, but merely as one circumstance among the morbid actions, or really have inflammation as a consequence, and that the hope of curing them by only antiphlogistic measures, is vain, whatever relief may be effected by lessening the inflammation which accompanies them.

The deep-coloured and the pale softening of the heart, distinguished by Laennec, occur

according to Bertin, the former as an acute, the latter as a chronic, affection. The chronic is often an attendant upon general cachexy; the acute, upon pericarditis.

But besides these chronic changes, true acute inflammation of the substance does occasionally occur.

Abscess and circumscribed ulceration are more frequently found.

The latter may commence in the lining membrane or pericardium. But, whether the ulceration be the result of an abscess of the heart, or originate in one of these membranes, it may proceed to perforation; or to such attenuation that rupture ensues, perhaps on some effort." 30.

Abundant cases of rupture of the heart are now on record, independently of ulceration. The following particulars of the death of Mr. Hayes of Charlotte-street, Fitzroy Square, a worthy surgeon, may be interesting.

"Before committing these lectures to the press, the first instance of rupture of the heart has been witnessed by me, in company with my friends Dr. Roe and Mr. Alcock. The rupture was a zigzag fissure in the front of the left ventricle, not at once discerned on bringing the heart into view, but which had filled the pericardium with blood. The patient, Mr. Hayes, a highly respectable general practitioner, in Charlotte-street, Fitzroy Square, corpulent, and about sixty years of age, had suffered three attacks of pain about the precordia with dyspepsia and vomiting, during six days, but had gone out as usual in the intervals. On the morning of his decease, a fourth attack of pain, referred by him to the heart, took place before he rose in the morning, and he gave his assistant directions for preparing him a fomentation. Presently his bell rang violently, and was instantly answered; but he was found dead. The heart was very soft: the fat external to the abdomen excessive, and considerable adhesions existed among the abdominal viscera." 30.

George the Second perished suddenly by rupture of the right ventricle—which is a very unusual occurrence—as did also the Princess of Brunswick in 1730. The valves are sometimes suddenly torn, and when the rent is extensive it is probable that extreme dyspnœa and frequency of pulse are the consequence.

Our author has not read of gangrene of the heart, but it has been found soft and black, without gangrenous smell—probably from excessive congestion of blood. The induration of the heart occasionally amounts to a cartilaginous or osseous state. These changes are almost always originally seated in the lining membrane or the pericardium—or in the subjacent cellular substance. Sometimes nearly a whole cavity becomes bony. Mr. Burns declares that he once saw not only complete ossification of the pericardium, but also the ventricles ossified as firmly as the skull, except for about an inch at their apex. In that case, Dr. E. has omitted to notice that the auricles were enlarged and thickened, and, in fact, performed the office of the ventricles in carrying on the circulation. Dr. Elliotson regards ossification of the coronary arteries as sometimes the cause of those symptoms denominated angina pectoris; but properly observes that such ossifications frequently obtain without angina pectoris, and angina pectoris without them. Dr. E. has seen the substance of the heart almost entirely changed into fat. The patient had been subject to frequent attacks of syncope, palpitation, irregular and small pulse, with dyspnœa and anasarca.

"Like various parts of the body, the heart is subject to neuralgia. I had a case of this kind, where the pain was intense, affecting not only the region of the heart, but darting at

the shoulders and back, sometimes dull and aching, at others, stabbing: not increased by motion or posture; unaccompanied by any stethoscopic signs.

It occurred in a middle-aged woman, at the hospital; and the symptoms were removed by iron, but afterwards, I believe returned."* 33.

Although the greater part of the fibrinous coagula observed in the heart and great vessels are products of death, yet some are unquestionably produced during life; for they are occasionally organic, and adhere by vessels to the substance of the heart, with corresponding symptoms during life.

"I formerly mentioned that the lining membrane of the heart and aorta was subject to inflammation, and sometimes simultaneously with the pericardium. In the case of the heart, I believe that the symptoms are increased general sound, force and frequency of action, with more or less pain or uneasiness: and when the former continue for a length of time, without the peculiar auscultatory signs of organic disease, or proportionate pain on pressure as observed in pericarditis, we certainly may infer the existence of this inflammation.

The lining membrane of the aorta is generally inflamed at the same time, and, when the affection extends along the descending portion, there is frequently a sense of smarting in the direction of the spine, and a violent pulsation in the abdomen not only of the aorta, put even of the illiacs, without any perceptible enlargement of the vessels, the existence of any tumour in its neighbourhood, or such a smallness of any of the arteries as might render it probable that the aorta was narrowed in any part and thus forced into violent pulsation.

Aortitis seems caused by all the circumstances which produce inflammatory affections of the heart, and perhaps by disease of the heart itself. Either hypertrophy of the left ventricle gives rise to inflammation of the aorta, or the converse happens, or they spring up together, for they are frequently conjoined.

Of the intensely bright redness of the inner surface of the inflamed aorta, and the impossibility of ascribing it to any thing but inflammation, I formerly spoke, as well as of the occasional effusion of fibrine. It appears as a red stain, and sometimes the middle coat appears more loaded with blood than usual.

But we far more frequently discover the chronic change of structure in this vessel. Yellow spots are seen every day: often a yellow curdy substance can be squeezed through the inner membrane under which it is deposited, the membrane having become friable and under distention giving it issue." 34.

Dr. Elliotson concludes the work with some judicious observations on aortic aneurisms; but nothing that need detain us any longer. We have now given a very full analysis of these lectures, to which some good plates are appended in illustration. The form of the work will greatly abridge its

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* "A second case has occurred to me since the delivery of these lectures, in which the person of a lady, who appears to have laboured under the disease, very many years. Besides a constant aching in the lower part of the cardiac region near the sternum, are frequent stabbing pains, plunging, (to use the expression of most persons afflicted with neuralgia,) so that she is compelled to rise and walk the room almost every night. These occur during motion and rest, but most severely during motion. They shoot in all directions, and occur occasionally in distant nerves. As soon as they are over she is apparently well, and, when they are not very troublesome, sings, dances, or takes horse exercise. In the first case, the ear discovered nothing morbid in the heart: in this, a slight ventricular bellows-sound is heard. Andral mentions a dreadful case of this kind, which proved fatal, without leaving any trace of disease in the heart, or its dependencies. Précis d'Anatomie Pathologique, t. ii. page 344, sq."

circulation among the profession, and this circumstance has induced us to dedicate a greater than usual space to its contents.

V.

On large Doses of Ipecacuanha in Dysentery. By *W. Twining*, Esq.

[Calcutta Med. and Phys. Trans., Vol. IV.]

A considerable portion of the last volume of the Calcutta Transactions is taken up with a very detailed report on dysentery by Mr. Twining and Dr. Mortimer. This is a disease not very common in this country, though a severe scourge of tropical climates—and even of many parts of Europe. We shall therefore give a brief account of the mode of practice which Mr. Twining has employed with success in the above disease. He premises that he does not mean to hold up any one remedy as applicable to all stages of dysentery; but freely admits the general principles on which venesection and other means are employed in the early or inflammatory stages of the disease. Consistent with these principles, however, he can strongly recommend "very large doses of ipecacuan" for the purpose of relieving the tenesmus and irritation, restoring a healthy state of the intestinal secretions, and promoting the healing of ulcerations when they exist.

"To fulfil these intentions, the powdered ipecacuanha has been exhibited combined with a bitter extract, whereby vomiting is counteracted. I have generally used the extract of gentian for this purpose, and by prescribing these two remedies in nearly equal proportions, we may, if requisite, give from six to twelve grains of ipecacuanha without often exciting nausea.

The quantity in which many medicines are taken, determines not only the intensity or quantum of effect, but the mode of action; and the organs and functions on which those actions are directed. This seems particularly the case with ipecacuanha, and the observations at present made induce me to believe, that the most effectual dose of this medicine, when intended to act as an anti-dysenteric, is six grains for an adult: larger doses sometimes produce general uneasiness, and have not been often employed by me in dysentery." 171.

In acute dysentery, the first object (after adequate bleeding) is to clear the bowels by a dose of castor oil, and then to administer six grains of ipecacuanha with four grains of gentian and five grains of the pilula hydrargyri every night at bed-time, and also at day-light in the morning; while one drachm of the compound powder of jalap (℈j. of jalap to ℈ij. cream of tartar) is to be given about eleven o' clock in the forenoon. If the patient be of an irritable habit, half a drachm of the powder will be sufficient.

"By these means we may soon procure a cessation of all the distressing symptoms, and it is then sufficient to continue six grains of ipecacuanha with four grains of extract of gentian every night, giving a smaller dose of compound powder of jalap, or a moderate dose of castor oil every morning, for four or five days more. The above treatment generally produces a restoration of a natural state of the alvine evacuations so quickly, that patients are with difficulty restrained from using an improper quantity of food in the early stage of

convalescence, when although the evacuations from the bowels may be in a regular and natural state, the intestines must remain weak, ready to be irritated by slight causes, and incapable of digesting any thing, but the most bland food. During the treatment now detailed, great attention is requisite to the quantity of food used, as well as its quality. Not more than six ounces of food and drink together should be taken at one time, nor should this quantity be repeated oftener than is absolutely requisite to prevent the patient from sinking; in severe acute cases, half this quantity should not be exceeded. By thus strictly attending to the quantity of food and drink used, it is probable that the ingesta will be almost entirely absorbed in the upper portions of the small intestines; so that the colon, which is the seat of dysentery, may be as nearly as possible empty while in an irritable state, and during the subsidence of disease, or the healing of ulcers. Bread and tea, or milk and sago are the most proper, to which soups in limited quantity may be added during the progress of recovery: solid food of any sort except bread not being allowed, until convalescence is far advanced. Should thirst be urgent, the patient may drink ozs. ij. of cold camomile tea, but ought not to repeat this oftener than once in an hour, however urgently required; it is the best drink that can be used, and does not increase thirst.

When this plan of medicine and diet is followed, the ipecacuanha seldom produces vomiting; but a healthy state of the bowels is speedily restored. In a few cases, six grains of ipecacuanha combined with gentian, have caused vomiting, but this circumstance has been exceedingly rare; and it has often happened, that patients were not sensible they had taken medicine possessing nauseating qualities. In more than one instance, medical men were subject to the same treatment for dysentery, and expected that half the quantity of medicine taken would make them vomit; still they experienced no such effect; being equally surprised at the exemption from vomiting, and the early and complete relief from suffering and dysenteric symptoms which the remedy effected. Twelve grains of ipecacuanha have been often given to adults combined with eight grains of extract of gentian, in four pills, without exciting vomiting; and half that quantity has been taken by a child thirteen years of age without causing nausea. I have never known five grains of ipecacuanha combined with the same quantity of gentian in pills, nauseate an adult. Some persons who were watching the effects of these large doses, expressed doubts as to the quality of the ipecacuanha, in use at the General Hospital; therefore, for the purpose of removing any chance of fallacy on this point, three grains of the medicine from the same bottle were given without the gentian, and it produced free vomiting, this was repeated several times so as entirely to satisfy those who attended to the experiment. Some other combinations of the same remedy produce a similar effect, appearing to divert the action of ipecacuanha from the stomach and to direct it towards other organs; as is well known to be the case when a moderate dose of jalap is given with as much ipecacuanha as would alone excite vomiting, instead of which the combination acts as a mild and satisfactory purge, this effect is rendered more certain if a small quantity of cream of tartar or other vegetable acid be added. A consideration of these established facts, might induce us to try other combinations for the same purpose, when gentian is not procurable. It is of importance that the extract of gentian be not burnt, or otherwise impaired in quality, for then it will not have the desired effect in preventing vomiting." 177.

In many of the slighter cases of dysentery, ipecacuan and gentian may be given night and morning, without the blue pill, a small dose of the jalap powder being exhibited daily at noon. "But it has appeared to me that the efficacy of the other remedies is very much increased by the blue pill."

The first effects of this plan, in ordinary cases of acute dysentery, are generally a slight increase of the secretion from the bowels, the evacuations becoming more copious and fæculent— with an abatement of the pain and

tenesmus—and a diminution in quantity of the blood and slime. Mr. T. has often noticed that a change takes place in the specific gravity of the fæces voided—a sediment appearing at the bottom of more fluid stools. This sediment is frequently a light gray powder resembling bran. Occasionally it is more dense, like pounded slate—more rarely like split peas. These appearances almost invariably indicated that a favorable change was at hand.

When the above treatment was steadily pursued for a few days, scarcely any other remedies were requisite, when the patients applied at an early stage of the disease. At the same time Mr. T. properly recommends bleeding by leeches as well as the lancet, in all cases of recent dysentery, where there is pyrexia, morbid sensibility of the abdomen on pressure, evacuation of blood by stool, or tenesmus. When depletion has done all that can be expected from it, then the plan above-mentioned "will be found of infinite service in soothing irritability, and restoring a healthy state of the bowels." Tepid baths, fomentations, &c., are proper auxiliaries. Mr. T. thinks that opium is generally injurious in this disease, unless when combined with calomel, so as to cause that medicine to be retained in the first portion of the intestines, and thus act on the hepatic and duodenal secretions.

Our author having only employed this plan in the lower provinces of Bengal, he can only speak of it in that climate. A great number of cases are adduced; but these we shall pass over. They corroborate the author's statements, as a matter of course, else they would not be brought forward. We shall extract the following note respecting hepatic dysentery.

"The frequency of *Hepatic Dysentery* in tropical climates is very generally admitted. In my observations for the purpose of ascertaining the relation of hepatic disease and dysentery, and the periods at which the one follows the other; I have in many cases noticed symptoms which induced me to believe, that hepatic irritation and congestion may be caused by extensive disease of the great intestine. In these instances there had been no evident symptoms of liver disease, until the dysentery had existed many days: in some cases the bowel complaint was on the decline, and the quantity of evacuations considerably decreased, when attention was called to the state of the liver, by the occurrence of some tumefaction at the right hypochondre, and a tenderness on pressing over the liver; the patient has complained of a sense of tremor and uneasiness in the belly, which has been attended by slight pyrexia, general restlessness, a hectic flush in the cheek, and some irritability of mind: the evacuations being then generally scanty in quantity and of deep orange colour inclining to red; more rarely pain in the top of the right shoulder has supervened. For this state a few leeches have been applied, and repeated with benefit, although the patients were weak; but most commonly these symptoms have subsided in three or four days, on giving daily some doses of calomel and rhubarb in the morning and dr. i. of sulphur in the afternoons, restricting the diet to tea, bread, and sago, *in very small quantities*. The calomel and rhubarb seem to solicit an increase of the biliary secretion, whereby the congestion is relieved, while sulphur given in a small quantity of water is a mild aperient, affecting chiefly the colon; a considerable part of this medicine is voided almost unchanged, and it has appeared to me to act favorably as a local application to the ulcerations of the great intestines. It is perhaps hardly safe to advance opinions concerning the state of internal organs in disease, without the support of repeated dissections. But such symptoms, as above described, have occurred so frequently, and in the order now related, that I cannot help ascribing them to hepatic irritation and congestion; the former arising from a disordered state of the blood which is returned by the veins of the diseased

intestine to circulate through the liver, the latter dependant on suppression of the purging. These sentiments regarding hepatic disease, as occasionally excited by ulcerated colon, require the confirmation of much more numerous observations; but at present they seem sufficiently established to claim attention." 200.

The paper concludes with a communication from Dr. Mortimer, of the Madras General Hospital, on the use of ipecacuan combined with calomel in dysentery, as seen in stations where a very hot atmosphere prevails, and the soil is dry and sandy. The following extract contains the pith and marrow of Dr. Mortimer's letter:

"The first remedy is bloodletting, general and topical, or either, the extent being determined by the effects produced. The former is considered as more particularly indicated, when the state of the pulse manifests constitutional excitement; the patient being always kept in an erect position during the operation; while the latter is had recourse to, with reference to the urgency of local symptoms; a dose of castor oil is then administered, and the appearance of the alvine discharge is the symptom by which the extent to which it may be necessary to exhibit mercury is determined. In some cases, especially where the patient had been admitted at night, and his motions not been seen, a dose of calomel to the extent of ten grains or perhaps more, has been given before the oil, in anticipation of structural derangement of the liver, in general, existing to a greater or less degree in dysentery. The state of the hepatic discharge then, as indicated by the appearance of the alvine evacuations, regulates the exhibition of mercury, and the preparation preferred, in the course of the treatment, is blue pill. At the commencement of treatment, the quantity usually prescribed is five grains three times a day, and it has been seldom or ever necessary to continue it to the extent of producing ptyalism,—a uniform discharge of healthy bile being the object to be attained. The consideration of the comparatively small quantity, by which this has been in general produced, when at the same time the ipecacuanha was administered in the manner about to be adverted to, may, perhaps, fairly admit of the opinion of a favourable influence being exerted by the latter, in promoting the effect of the mercury, and rendering a less quantity necessary for correcting vitiated secretion of the liver, and restoring a flow of healthy bile."

"The use of the ipecacuanha is generally commenced after the bleeding, or five or six hours after admission, and given in doses of five grains each, in combination with an equal quantity of powder of gum acacia, every hour or second hour, as the patient's stomach may be able to bear it without producing vomiting. During its exhibition, the use of fluids is limited as much as possible, and the patient generally complains of a good deal of nausea, although not so much as might be anticipated, and its rejection by the stomach is by no means a common occurrence.

"The immediate effect of the acacia, or why vomiting is not so readily produced, when the ipecacuanha is given in combination with it, as when exhibited alone, I do not pretend to explain; being satisfied by the experience of having exhibited a much larger quantity of it, in the manner alluded to, than I have been able to administer by itself, without producing the effect in question. In some cases it has been given to the extent of between 90 to 100 grains in 24 hours." 213.

The above paper is a valuable, because a practical one, and may prove beneficial in many other countries than the peninsula of India, or the marshy plains of Bengal.

VI.

THE MEDICAL TOPOGRAPHY OF MALTA. By *John Hennen*, M. D.

"Insula parva situ, sed rebus maxima gestis;
Africæ et Europæ, ac Asiæ contermina, Pauli
Hospes, et alborum procerum gratissima mater."
Vicenzo Littara in Abela.

THE medical topography of Malta, by the late indefatigable Dr. Hennen, forms the principal part of his great work on the topography of the Mediterranean generally, and is by far the most finished specimen of this species of medical literature in the English language. Next to Gibraltar, the Island of Malta is the strongest and most important of all our possessions in the Mediterranean; and as it is now frequently recommended as a refuge for our invalids, its climate and locality become interesting objects of inquiry to medical practitioners in this country. On this account alone, we flatter ourselves that the following article, in which we have laboured to condense as much useful matter as possible in the smallest space, will not be deemed an unimportant portion of our present number.

This celebrated island, which has been claimed by Africa and Europe, lies between the two, and is about 60 miles in length by 35 in breadth. It contains neither rivers, lakes, nor morasses; but numerous *fiumari*, or beds of winter torrents, which are retentive of under-ground moisture, long after the surface has dried—besides several other sources of malaria. A principal locality of this kind lies at the head of the great harbour, and is called the "MARSA" or Marsh—another is the valley at the head of St. Paul's bay, "the marsh of Paules"—and a third is seated at the head of the quarantine harbour—"MISSIDA." History, and even recent history, shews that these places have annually afforded the miasms that occasion intermittents in the human population.

The island is, generally speaking, low, the highest ground being little more than a thousand feet above the level of the sea. The surface, however, is beautifully diversified; and, were it planted with trees, would present a very picturesque line of hill and dale. A small range of craggy hills crosses the island, and is only influential in affording sources of spring water, and directing the course of the winter rains into the different valleys. These valleys generally run in a direction from South-West to North-East—and are supposed to be gradually filling up by the alluvial deposits. Were they not carefully drained, they would soon become very insalubrious.

CLIMATE.

This has been variously represented by different writers. One thing is certain—that it is very healthy. In the year 1822, the maximum heat (within doors) was 90 degrees—the minimum 46—the medium 68°. In 1823, the medium was 69°.

"Every person accustomed to thermometrical observations is aware of the difference between sensible heat and that indicated by instruments. In Malta it is particularly striking,

and greatly depends on the state of the winds; but it is at the night season that the heat is most oppressive, so much so, as to justify the term 'implacable,' which is often applied to it. The sun in summer remains so long above the horizon, and the stone walls absorb such an enormous quantity of its heat, that they never have a sufficient time allowed them to get cool; and, during the short nights, this heat radiates from them so copiously as to render the nights, in fact, as hot as the days, and much more oppressive to the feelings of those who are accustomed to associate the idea of coolness with darkness. I have seen the thermometer, in a very sheltered part of my house, steadily maintain, during the night, the same height to which it had arisen in the day, while I marked it with feelings of incalculably increased oppression; and this for nearly three successive weeks of August and September, 1822." 444.

Snow never falls at Malta. The rains fall with tropical violence in the months of December, January, and February. About March, the sky gets settled—and during June, July, and August, scarcely a cloud is seen. The rainy season is not particularly unhealthy—perhaps because the rains chiefly fall in the night, and are quickly absorbed by the chalky soil, and carried off by the well-drained streets. Winds from the South and West bring murky clouds, and envelope the island in fogs. The opposite winds sometimes bring with them dense fogs, and even heavy rains. The dews are extremely heavy in Spring and Autumn—and always when the SIROCCO blows. In the middle of Summer, they are rarely observed—and, at this season, the roofs of the houses, the balconies, and even the streets are the principal dormitories of the inhabitants, according to their respective ranks, and without injury to health, while moisture is avoided.

The most remarkable, if not the most prevailing winds, are from the S, E.—S. and N. W. The two former, the SIROCCO, are always damp, suffocating and disagreeable—especially to the sick. The North-East wind called the "GREGALE," when moderate, is bracing and invigorating; but, when violent, the mercury sinks, heavy rains fall, and the sudden change of temperature is severely felt. There are no regular sea and land breezes at Malta. So soon as the sun sets, the atmosphere becomes close and sultry, and the breeze, if any, dies away. The volumes of impalpable dust which are rolled about at Malta, exert a considerable influence on health. The closed doors offer no effectual barrier to its entrance—the eyes are clogged—the fauces choaked—and the skin covered with it.

When a damp wind blows, or when the dews and fogs are heavy, this floating dust is moistened, its particles coalesce, and it is precipitated from the atmosphere in the form of drops of a very fine mud; we frquently see the plants in a morning covered with this precipitate. It is something of this kind, unusually copious in quantity, which Dr. Maclean, in his 'Researches,' dignifies with the name of 'a shower of mud,' and which he conceives to have been a cause of the plague! This opinion is too absurd to require a serious refutation; the dust of Malta floats in the atmosphere for more than half the year; but although I do not admit of its producing pestilence, I have no doubt of its injurious effects on the eyes and lungs." 447.

Participating with Dr. H. in the absurdity of the *pestiferous* hypothesis, we cannot help thinking that the designation which Dr. Maclean gave this shower, was peculiarly appropriate.

The island is a rock of limestone, of different densities and species. The soil therefore cannot be supposed to be very deep or fertile. Nevertheless

the climate is favorable to the production of tropical fruits and vegetables, and we find abundant supplies of these in the fields and markets. The principal vegetable productions are cotton, cummin, and oranges. The island does not produce more corn than would supply the inhabitants a third part of the year. Nothing like a wood or even grove exists on the island, and vegetation is, of course, on a very contracted scale. Perhaps it is owing to this very circumstance that the island is so comparatively salubrious. The population is estimated at 110,000 souls. The houses are built of very solid materials, and are well adapted to the climate. The roofs are flat, and covered with "terras," so as to be impenetrable by rain. The floors are generally of stone. Each house has a court, with a small well or tank; into this court many of the windows of the apartments open. The apartments are spacious, lofty, and cool in Summer; but, having no fire-places, are uncomfortable in Winter.

Fuel being scarce, its consumption is economized. A Maltese considers it unwholesome to heat his apartment by a fire—and so it is, where there is no fire-place. He therefore seeks for heat in warm clothing and well-closed doors and windows. Even the kitchens are scantily supplied with fuel, and immediately after the meal is dressed, the fire is extinguished, so that, during the remainder of the day—

"Their kitchens vie in coolness with their grots."

The Maltese are frugal and abstemious, like all those who—

"Force a churlish soil for scanty bread."

In regard to physical character, the natives of Malta stand in a respectable point of view. The men are about the middle size, erect and active. The women are below the average height, (and they have the Medicean Venus for a comfort,) but well formed—and many of them handsome. They suffer little in parturition, and generally leave their beds on the third day. They marry early. Many instances occur where females are mothers at the age of thirteen years.

Endemic and Prevalent Diseases.

Remittents and intermittents are of annual occurrence among the resident inhabitants, and in considerable numbers. Although the sources of malaria are on a small scale, they are nevertheless quite adequate to the fevers which are seen of the type alluded to. Ophthalmia appears, in one form or other, every year.

"There is every reason to suppose, that those diseases principally proceed from the united influence of the excessive heat of the atmosphere, the great glare of the sun reflected from the rocks and numerous buildings, and the vast quantity of dust blowing about in all directions; while, during the night, the atmosphere is often particularly damp, from the copious depositions of dew, to the effect of which the lower orders are fully exposed, as they sleep frequently in the open air, and always with the head uncovered; in addition to which the sirocco winds of autumn are peculiarly damp of themselves." 496.

This is a more philosophic explanation than that which has been resorted to by the natives—namely, that ophthalmia is owing to the ripening of the

pomegranates in Autumn—in the same way as they believe the activity of the fleas in early Summer is occasioned by the ripening of the beans!

Next to fever, the most prevalent diseases are bowel-complaints and *pulmonary affections.*

"The deaths by pulmonary affections are also very numerous; they are classed under six different heads in the bills of mortality, viz. cough, consumption, hæmoptysis, phthisis, pulmonalis, pleuritis and pulmonic. If we even deduct the vague class of 'consumption,' we find the remainder very numerous, and the mortality occasioned by cough and phthisis pulmonalis alone, will of itself satisfactorily prove the great error of sending phthisical patients to this climate from England, under an idea that phthisis is rare, or continuing them here when their disease is once developed. 498.

Phthisis is rapid in its course, in this island, where, as in Italy, it is considered to be contagious, both by medical men and the inhabitants generally. Liver complaints are very numerous.

PLAGUE.

The most important epidemic of Malta is the plague. The position of the island, so close to the Levant, must render it always exposed to the contagion of this dreadful disease; and nothing but the strictness of its quarantine, Dr. H. thinks, has preserved it from frequent visitations. The years of its occurrence, according to the most authentic accounts, were 1519—1593—1623—1663—1675—from which it had a respite till 1813, or 138 years!

How the contagion was introduced at the last-mentioned period, is a question still involved in doubt—"nothing amounting to positive certainty being known." The received opinion was, that it was imported in a polacre from Alexandria. Unfortunately for Malta, the nature of the disease was unsuspected until it had developed itself by distructive progress among the people, and bade defiance to all attempts at tracing the line of communication.

"It is in vain (says Dr. H.) to deny that many gross errors were committed at first, (both by the public authorities and the population,) from ignorance of the real nature of the disease, and from dread of the quarantine police; and it would be equally vain to attempt to conceal, that, after the disease was known to be plague, the best and most active measures were not at once adopted; but how often do we discover in the annals of the plague, that the cool promptitude which we are so ready to admire in theory is seldom exhibited in practice! It requires a rare combination indeed of knowledge, judgment, and activity, to cope with this insidious and deadly foe; and it is rearer still to meet with them all united in an individual who at the same time possesses the authority and vigour to bring them into full unembarrassed action. Such a man was he to whom Malta and Gozo owe the extinction of the plague which ravaged their shores in 1813 and 1814, and who, by a repetition of the same wise measures, was equally successful in other British possessions. It is with emotions of no ordinary kind, that I here insert an extract from a despatch addressed by him to Lord Bathurst, in April, 1819, a document which, I may venture to assert, displays throughout more solid information on plague, than has hitherto appeared even in the works of professional men. 'This is a subject,' says Sir Thomas Maitland' "upon which I possibly have had more occasion to pay a very deep attention, than any other individual in his Majesty's service, and it is one upon which I can say, without flattering my-

self, I have had more practical experience than almost any other person, having arrived at Malta in the middle of the plague, and having since that witnessed the beginning and the end of three different plagues, one in the island of Gozo, one in the island of Corfu, and one in the island of Cephalonia.

'The subject itself is one of a most important nature; for there is no denying that the treatment of plague, under the ancient system, is one attended with a degree of cruelty and tyranny unparalleled in the annals of the world, and only to be defended on the principle of positive and ascertained necessity.

'The system cuts up by the root all those feelings of domestic life which are peculiarly endeared to the mind of man in a moment of sickness and distress; rends asunder all the usual bonds of society, and places the unfortunate patient in a situation of the most desolate isolation, at the moment when the only remaining comfort of life exists in the kindness of natural friends and connexions.

'The quarantine law, too, in the instance of the plague actually existing, is not only most arbitrary in itself, but to the full as indefinite as it is arbitrary; and the whole of the circumstances attached to it are so revolting to the feelings of every man, look at it in any way, that I apprehend that this is one of the principal reasons why, in almost every instance that can be mentioned, this fatal malady is allowed to arrive at a great height before it is even declared to be plague; and in the two great instances of the plague at Messina and Marseilles, we accordingly find that no reliance was placed on its being the plague till it got to that dreadful head that occasioned those miserable scenes which afterwards ensued.

'The same was considerably the case at Malta at the breaking out of the plague, and it cannot be astonishing to any man who has seen it, that even the last dregs of hope must expire, before any society can submit patiently to a system of discipline which can be stated at best as only an inferior evil to the plague itself.

'The quarantine laws under the same system, with the view to prevent the introduction of plague, are attended, in all instances, with evils of great magnitude, and most of all, in the very serious effects it universally has upon the commercial relations of different countries. It would be most fortunate indeed, if it could be made out that the world had hitherto been mistaken with regard to its causes and its origin.'" 505.

In most of the plague countries this dreadful malady spontaneously subsides at the Summer solstice; but in Malta this fortunate trait in the character of the disease did not appear. We shall not follow Dr. Hennen in his account of the symptomatology of the plague. No medical man on the island met with a second occurrence of the disease in the same individual; yet instances of this are on record. Our author is a firm believer in the contagious nature of plague, though he acknowledges that season, climate, and indigenous causes have great influence over the disease. The following passage is interesting.

"I shall now give an instance of the complete immunity afforded by separation, where the distance between the infected and the sound was reduced to a few feet, and where the contagion was literally at their very doors. I have already observed that the lower parts of the houses of Valetta are generally occupied as shops, stores, &c., or places of residence for the poorer classes of inhabitants. In the lower part of the hospital of one of the regiments quartered in Valetta during the plague, there resided no less than seven distinct families in an equal number of separate habitations. The plague raged among these unfortunate people to such an extent, that four families were totally cut off, and of the remainder little more than a fourth escaped with life: the plague raged in every corner of these dwellings, and yet the hospital, which was situated on the upper floor, but whose inmates were kept under the strictest control, escaped all contamination whatever. The heated air and exhalations from the habitations below were in no way guarded against, but had unimpeded

access to the windows of the upper apartments, towards which they must naturally have ascended at all times from their greater levity, and into some of which every wind that blew must have impelled them in a state of great concentration. In front of this hospital, it is true, there is a small square or open space, and on one side runs a street (Strada Ponente) of nearly the ordinary breadth; but in the rear it joins a large mass of buildings, and on the western face there is a narrow blind alley only ten feet wide, into which the doors of all the contaminated houses opened, and as these doors were the only means of communication with the external atmosphere, the pent-up space must have been continually filled with the accumulated exhalations of the diseased. This was not a solitary instance of the residents on one floor of a house enjoying the reward of proper precautions, while their negligent neighbours above, below, and around them, were falling victims to the plague; but it is rendered remarkable, when we recollect how susceptible to all impressions from atmospheric influence, and from disease of every description, the residents of an hospital usually are under even the ordinary circumstances of military practice." 513.

Dr. H. next adverts to a well-known case, in which plague actually existed within the walls of a building, and yet was prevented from spreading by strict separation. The convent of St. Augustine was the scene of this segregation and security. From the first alarm, the Padre Maestro Valla, principal of the convent, maintained the utmost caution in communicating with the public; but at length a servant purchased some old clothes in the Mandraggio, and was soon taken ill, together with one of the monks who attended on him. They were both put in strict quarantine in their respective cells—and the convent was converted by the activity or fears of the Padre, into a well-organized lazaretto. The servant and his attendant both died of plague, but no one else in the building caught the contagion.

The most remarkable instance, however, of the efficacy of insulation, and the inability of the pestilent miasma to propagate itself through the medium of the air, occurred at Casal Curmi, a village in one of the valleys of the island. The inhabitants became extensively affected with the plague, and the governor determined to draw a line of circumvallation, by means of a cordon of troops, around this ill-fated village. The consequence was, that no disease radiated from this focus of contagion, not even to the soldiers who guarded it.

It is unnecessary to go into the details of the specific prophylactic measures that have been proposed and practised against this terrible visitation—such as oily inunctions, the crape mask, fumigations, tobacco leaves between the fingers of the attendant and the wrist of the patient. We have little confidence in any of them. The oily frictions appear to have most facts in their favour; but the profuse perspirations which they occasioned prevented them being regularly employed. We entirely agree with our intelligent author in the following passage.

"The best plan appears to me to be, first, the free and continual admission of air to all parts of the house and furniture, the removal of filth of every species, ablution of all the wood-work, by a strong lye of soap and water, and the application of hot lime-wash to all the walls from the cellar to the garret; taking care to remove and repair all loose or decayed pieces of plastering. All the drains, necessaries, &c., should be thoroughly cleansed, which may be well done after the grosser matters are removed, by pouring down them the water of the tanks, which as well as all other reservoirs, should be completely emptied of

their contents, in order to undergo a thorough cleansing. The clothing and furniture should be most minutely cleansed, and such parts as are not susceptible of damage from water should be submitted to copious affusions and even boiled in a strong lye when practicable." 533.

"Upon the whole, the history of the plague of Malta furnishes us with the strongest arguments in favour of the theory of contagion, and justifies, in the most ample manner, the practice of those, who place their sole dependence on prompt and decisive measures of police, persevered in long after the exigencies which first rendered them necessary, may, to the inexperienced eye, have appeared to cease.

Medicine, generally speaking, is of little avail; but however useful the rules of the physician may be found, under certain circumstances, the old distich should never be forgotten, which though trite, contains the correct rule of conduct:—

"Hoc tria labificam tollunt adverbia pestem
"Mox, Longe, Tarde, cede, recede, redi." 535.

LONGEVITY.

In a hot climate, like Malta, the external indications of age increase rapidly, "and often give to maturity, and even to youth, the appearance of a much greater advance in life than they have really made." Nevertheless there are instances on record, though we may suppose them rare, where people have lived to the advanced age of 90, 100, and even 110 years. Dr. Hennen could not ascertain the mean duration, or the value of life, which is of far more consequence than a few rare examples of longevity, which are merely exceptions to general rules.

The only subject which we shall notice is that of—

PULMONARY AFFECTIONS.

Dr. H. takes the pulmonary diseases as he finds them in the military returns, and consequently it cannot be expected that the nosological designations should be always accurate. From these returns, as well as those collected in the Ionian Islands, Dr. H. considers it all but proved that malarious situations are those most free from pulmonary affections in general. From the table of admissions in Malta, it appears that pulmonary complaints were in the proportion of about one to eleven of all other complaints put together. It is to be remembered that soldiers are not enlisted or sent to a foreign climate labouring under any symptom of phthisis or other dangerous disease —that they are, generally speaking, in the prime of life—that they are disciplined and kept in order—and that they have prompt and excellent medical attendance. These circumstances taken into consideration, we may well conclude that Malta is not the place for phthisical invalids. Indeed Dr. H. expressly informs us that all men who presented symptoms of this disease were sent home to England by every possible conveyance.

"I would observe," says Dr. Hennen, "that heat, such as is experienced at Malta, produces a great 'plethora ad volumen,' and determination of blood to particular internal parts, especially those weakened by previous disease; I would also observe, that frequent alternations, such as occur at Malta, must greatly affect the regularity of pulmonary exhalation; but I conceive that there is another powerful effect of the atmosphere to be considered.

Saussure, Humboldt, and others, who have ascended high mountains, have constantly

found that, as the air has become rarefied, their respiration has become impeded, pains in the chest have occurred, and, in several instances, hemorrhages from the lungs and nose have taken place, so as to oblige them to descend. Now, in Malta, we have a rarefaction of the air, not, indeed, from the same cause, nor to the same extent that is observed on the tops of mountains, but sufficient to affect the sensations very strongly in breathing, especially when that function is constantly performed under its influence. But it may be said, why does not the rarefaction of the air equally affect the lungs in the Ionian islands, where the heat is nearly as great, and where it is admitted to be more disagreeable to the feelings? The answer, I conceive, is very satisfactorily furnished; the moisture of the air in the islands obstructs its great rarefaction; while, in Malta, it is exsiccated to the highest degree from the general aridity of the soil." 604.

Although we do not subscribe to Dr. Hennen's reasonings respecting the unfavourable operation of a Maltese climate on pulmonary complaints, yet we have no doubt as to the fact. No one, indeed, who navigated the Mediterranean seas, or traversed its islands and surrounding shores—and who, at the same time, was competent to judge, could possibly infer that such localities were favourable to diseases of the chest. It is very true that, in Italy, Greece, and the Islands of the Mediterranean, but especially in Italy, the vicissitudes of temperature, and of drought and moisture, are not so *frequent* as in England and some other countries; but then they are equally as sudden--and to a far *greater extent*. It is the *infrequency* of occurrence, and the *immense range* of the transition, when it does occur, that renders the said transition so detrimental under the boasted skies of Italy. The reason must be obvious to every medical capacity. The human frame becomes *habituated* to atmospherical impressions, when we are moderate and repeated at short intervals—but not so when they are *immoderate*, and with long intervals between them.*

We have now concluded our review of Dr. Hennen's work, which we have divided into different articles, in order that we might be able to exhibit a clearer view of each particular subject. The profession has long ago decided on the merits of the industrious and intelligent author, so that eulogy is now superfluous. An acquaintance of nearly twenty years with the deceased—and not merely an acquaintance, but a cordial and sincere friendship, strongly urge us to give vent to our feelings on taking a final adieu of Dr. Hennen and his work! But alas!

> "Can honour's voice provoke the silent dust,
> "Or flattery soothe the dull cold ear of death?"

It is not probable that the departed spirit is permitted to know what goes on after the tomb has closed over its mortal fabric; and therefore it is useless to say any thing that would have been personally pleasing, before the debt of Nature was paid! The best thing we can do for the dead and the living, is to give every diffusion in our power to the useful labours of him who has ceased to toil and to feel for the good and for the sufferings of his survivors.

REQUIESCAT IN PACE!

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* See the Editor's observations on the subject in a work just published, entitled "CHANGE OF AIR, OR AUTUMNAL RELAXATION."

VII.

PATHOLOGICAL OBSERVATIONS. By *John Houston*, M.R.I.A.

[Dublin Hospital Reports, Vol. V.]

THESE pathological memoranda are short and miscellaneous, such as may be transcribed from the note-book of a practitioner—and not the less valuable on that account! If we had more of these plain records of facts, and less of the recondite speculations which are often based on no facts at all—or on false facts, medical science would be a gainer by the change! But it is needless to hope for any such millennium in our art.

I. MALFORMATION.

A female was delivered of a male child, which exhibited no outward imperfection. On every attempt to suck, there supervened fits of suffocating cough, and the milk was all disgorged. An attempt was made to pass a bougie down the œsophagus, but failed. The infant died the next day. On dissection, the pharynx was found to terminate in a cul-de-sac, someway down the neck, without having any communication with the œsophagus. The larynx was perfect. "The trachea was also complete on the anterior and lateral parts; but the posterior wall was perforated by a wide opening, from which the œsophagus took origin, and which appeared so smooth and oblique as to render the passage from the larynx into that tube, as direct and easy as that along the trachea into the lungs."

It is hardly necessary to observe that, as soon as the milk accumulated in this cul-de-sac so as to rise on a level with the rima glottidis, and enter that chink, the symptoms of suffocation ensued. A drawing of the parts is given by the author.

II. ATTEMPT AT SUICIDE.

In March, 1828, a servant attempted to distroy himself by cutting his throat with a razor. Mr. H. saw him ten minutes afterwards, and found him almost lifeless. Circulation and sense were suspended. The wound was frightfully deep, and extended almost from ear to ear. The razor had entered between the os hyoides and thyroid cartilage, disuniting them so completely as to allow the *former* to ascend with the tongue into the mouth. The pharynx was laid wide open, and the epiglottis severed from its attachment to the tongue and os hyoides, and thus left hanging by its pedicle to the back of the Pomum Adami. The carotids had escaped untouched, and the hemorrhage was inconsiderable. It appeared difficult at the moment to account for the sudden extinction of life. The symptoms were evidently those of suffocation, but the cause was not, at first, understood.

"I passed my finger into the wound, and found, to my surprise, that the epiglottis, loosened from its upper and lateral attachments, had fallen back over the rima glottidis, and completely intercepted the passage of air to the lungs. I raised the obstructing body and drew it forwards: the chest soon after began to heave, respiration returned, the heart and pulse again beat, and consciousness and sensibility were re-established.

It required some effort of my fingers to hold up the epiglottis, as the air at every inspiration tended to force it back again to its unnatural and dangerous position." 316.

In this dilemma the top of the epiglottis was brought over the edge of the thyroid cartilage and there secured by a ligature. The man, in a short time, sat up, but was unable to articulate. He was taken to the Meath Hospital, but never recovered from the delirium under which he laboured at the time of the suicide. He died a week after the attempt.

III. Effects of the Rope in hanging.

In two individuals brought into the College of Surgeons for dissection, the appearances were so similar that our author deems them deserving of record.

"Both the individuals were strong plethoric men, executed for murder of a tradesman of their own craft under the combination system. Their death was evidently caused by strangulation. The cervical vertebræ were unbroken, and the spinal marrow and brain presented no marks of injury. In both the sternomastoid on the right side (the opposite to that on which the knot of the rope was applied) were ecchymosed, contused, and broken; those of the left side were only slightly bruised. The os-hyoides and thyroid cartilage were completely severed from each other. The omo-hyoid, sterno-hyoid, and thyro-hyoid muscles were so bruised and lacerated, that only some stretched shreds of them remained to hold the parts together. The thyro-hyoid membrane was also torn across, and the epiglottis, pulled from its root at the back of the thyroid cartilage, had passed up with the os-hyoides and tongue into the back part of the mouth; the skin alone remained unbroken, and interposed between the rope and the cavity of the pharynx. This was the only region of the neck which gave evidence of much injury; the great vessels and nerves all escaped unhurt.

"In two other criminals, which more lately I have had an opportunity of examining, precisely the same effects had been produced by the rope on the soft parts of the neck, and without any injury to the brain or spinal marrow." 318.

We agree with Dr. Houston that the knowledge resulting from the *pathological* effects of hanging is not of much importance in medicine. The *moral* effects of this operation are of more consequence; but these are beyond our pale.

On this account also, we shall pass over the "case of a man who lost his life from having swallowed a large spoon." It is a thousand to one that any of our readers shall meet with such a case—and if they did, the effects of this suicidal performance would not be of the least use to them. The man died of peritonitis, and on dissection, the spoon was found lying across the spine, in the cavity of the duodenum, with one end of it in the pyloric orifice of the stomach. It had produced ulceration of the duodenum, with extravasation of its contents into the cavity of the abdomen.

IV. Internal Strangulation of the Bowels after Parturition.

This case is so short, and so incapable of abbreviation, that we must give it in the words of the author.

"A lady about 28 years of age, and the mother of several healthy children, to all of whom she had given birth without any untoward symptoms, was delivered of a healthy boy, her last child.

During her pregnancy she had experienced no unusual inconvenience, but immediately after the birth of the infant she complained of severe pain in the abdomen, which became violently aggravated on the placenta being discharged. No evacuations could be procured from the bowels; the belly became swollen and tense, and the pulse remarkably quick and small. She sunk rapidly under symptoms of the most acute peritonitis, and notwithstanding the most energetic treatment, expired in about thirty-four hours from the time of delivery.

Dissection. The uterus had contracted, and nearly retired into the pelvis. The entire peritoneal surface exhibited all the marks of intense inflammation, and the ileum, to the extent of about three feet, was completely sphacelated, black, and filled with blood. A band of lymph, two inches long, and of considerable thickness and solidity, was attached by one end to the right ovarium and fallopian tube, and by the other formed a tight noose around the mesentery of the mortified gut, which thoroughly strangulated and deprived it of circulation. The extravasation of blood, which had taken place into the cavity of the intestines, and among its tunics, marks the tightness of the ligature.

It would appear, from the absence of any disagreeable symptoms during pregnancy, and the rapidity and violence with which they followed the birth of the infant, aggravated still more after the discharge of the placenta, that the adhesion between the ovarium and mesentery had been contracted while the uterus was high in the abdomen, *and that the descent of that organ after parturition drew tight the band which strangulated the bowels.*" 322.

V. Two cases of malformation of the heart ensue, in which there was a communication between the black and red blood. In one of them the blue colour only came on when the little patient laboured under any pectoral affection. In the other, life was destroyed by repeated convulsions, at the age of 18 months. In both cases, there did not appear to be much inconvenience from the malformation, when there was no agitation of the system by disorder or strong exercise. We published, some years ago, a remarkable example of this kind, where the foramen ovale was quite open, but where there was no blue colour of the lips or skin except when the little patient was excited or irritated.

VI. ENCYSTED HYDROCEPHALUS. A healthy-looking infant was affected the day after its birth with slight convulsions, which increased, in frequency and severity, to the sixth week. They then ceased; but the child became more stupid, and the head began to enlarge. Audition appeared to be unimpaired, as also the sense of taste; but the eyes seemed insensible to light. When a year old, the head was enormously enlarged—the anterior fontanelle broad—and fluctuation was perceptible all through the cranium. At intervals the child voided large quantities of urine, followed by sensible diminution of size in the head, and alleviation of stupor. The bowels were always costive, and sleep was almost continued. It died at the age of 23 months, and the weight of the head was then equal to that of the whole body. We shall give the dissection in the words of the author.

Dissection. "The bones of the cranium were thin and flexible; the membranes of the brain healthy. The cerebral matter was soft, pale, and exsanguineous. The convolutions were nearly effaced, their surfaces broader than natural, and their interstices less deep. On the removal of the membranes the brain could with difficulty be supported entire, owing to the quantity of fluid in its interior. In the situation of the corpus callosum a transparent membrane existed, scarcely concealing the fluid which lay underneath. The

lateral ventricles were vastly dilated, and thrown into one common cavity by the absorbtion of their natural partition the septum lucidum, no vestige of which was discoverable; they were lined by a firm opaque membrane, smooth on the surface, next the fluid, formed into folds, which divided the cavity into several lodges, and supplied with numerous blood-vessels larger and more turgid than these on the surface of the convolutions. The fluid which the ventricles contained was limpid, of a pale straw colour, and in great quantity. The cerebellum was reduced to one-half its usual bulk, its substance softened, and its convolutions scarcely traceable. Its place was occupied by the water of the fourth ventricle; and the arachnoid membrane, covering its posterior and lateral surfaces, was universally adherent to that lining the dura mater of the posterior fossa. The pons varolii was small and soft in texture. The nerves at their points of exit from the skull, were perfectly distinct, though their origin from the brain could with difficuity be traced.

So far the morbid anatomy of the case offers nothing very singular; the most remarkable circumstance connected with it remains yet to be noticed, viz., the existence of various sized cysts in different parts of the cerebral substance, unconnected with the ventricles, and which continued to hold fluid after the evacuation of water from these cavities. There were two such cysts, each of the size of an almond, in the site of the fornix and optic thalami. Two others were found in the anterior lobe of the right hemisphere, each capable of holding from one to two ounces of water, and perfectly distinct from each other and from the neighbouring ventricle. These cysts were distended with fluid and lined with membranes, bearing the same general characters as those which existed in the ventricles. There were two other small cysts near the base of the brain, analogous in their contents and in the qualities of their lining membrane to the proper ventricular cavity. The cerebral matter in the immediate neighbourhood of these cysts had undergone no material change, and differed not in quality from that in other more remote parts of the brain." 330.

VIII.

A few Practical Observations on the Spasmodic Cholera of India. By *Alexander Smith*, M. D. Member of the Royal Asiatic Society, of the Asiatic Medical and Physical Societies of Calcutta, Assistant Surgeon of the King's Dragoon Guards.

The epedemic form of spasmodic cholera, for more than thirteen years the fatal scourge of Hindoostan, has been practically known to the inhabitants of Europe only by the occasional appearance of a disease, which, in some of its leading symptoms, has borne a resemblance to the appalling coup de mort of India. During the present year, however, the rapid and deadly progress of an analogous distemper, over a great portion of the Russian Empire, renders the cholera an object of dread and interest to Europeans generally, and calls for every mite of information relative to the phenomena of this justly-termed inscrutable and intractable disease, which research can discover or experience supply. The author is, therefore, induced to offer the following observations, made during a period of severe suffering from this malady, and as containing the result of considerable practice.

FIRST OBSERVATION.

On the general Cause and Effects of Spasmodic Cholera.—The Cholera derives its exciting cause from a vitiated state of the atmosphere, which contaminates the blood during its circulation through the lungs of persons predisposed to the disease by the depressing passions, irregularity of the natural functions, or any debilitating power. The immediate effect of this contamination is, that a stream of deteriorated, probably decomposed blood, is thrown through the heart, into the vessels where the crassamentum becomes congested, and incapable of exciting or supporting the healthy organic action, while the vessels surcharged with the separated serum pours it into the stomach, intestines, and over the surface of the body. The absorbent function is suspended, the nerves fall into irregular action, the great lymphatic loses its influence over the organs which it supplies; the heart assumes a morbid imbecile excitement; the stomach falls into a state of violent inverted action, the hepatic and renal ducts are constricted; the intestines are incapable of freeing themselves from the morbid secretions which oppress them; the muscular energies are universally prostrated; and nothing escapes the shock save the sensorium, which continues sound amidst the agonizing spasm of its nerves, until the destruction of almost every other function, when worn out by intensity of suffering the mind also sinks into insensibility and yields to its fate.

SECOND OBSERVATION.

On the predisposing Cause of Spasmodic Cholera.—Perhaps there exists no proof that any particular conformation of body, or any age, or occupation, or mode of living, have a direct tendency to produce a predisposition for this disease. Some well-marked cases have, however, occurred to the author, in which general exhaustion, shrunken features, and hollow, dark-encircled eyes, seemed to be induced by great anxiety and fatigue during very hot weather, and these cases terminated in collapsed cholera.

It is also worthy of remark, that of two corps, one was stationed during a late hot season, in crowded barracks, having a very low site, with a nulla or stagnant pool in the rear; but the men being cheerful and contented, cholera did not make its appearance among them—while the other corps, although cantoned in excellent detached barracks, situate on one of the most elevated and most healthy plains of central India, during the same season and within a hundred miles of the former regiment, being less happy and contented were subjected to four visitations of the disease during the season, and lost a considerable number of men.

It may be added here that, in a majority of fatal cases of cholera, potatoes, in an undigested state, were found in the stomach.

THIRD OBSERVATION.

On the Nature of the Miasm which excites Spasmodic Cholera.—We have to regret that neither theory nor experiment have yet demonstrated, what the atmospheric contamination, which, in passing over certain districts, excites spasmodic cholera in predisposed persons, actually consists of; but we do

know, from its effects, that the air bears along with it either combined or suspended, sometimes a very considerable proportion of the prostrating power, so that the number attacked with the worst form of the disease becomes at once great; and, at other times, that the atmosphere seems to be impregnated with so minute a portion of the miasm, that a mild form of the disease shews itself, and soon passes away. Spasmodic cholera often continues its havoc while a certain wind prevails, or during a particular state of the weather, and ceases when the wind or weather undergo any change. It is most virulent during the hot season of the year, and exercises its influence under the most opposite extremes of dryness and humidity of the atmosphere. Thus we have seen it disappear, when the rains were succeeded by warm, dry weather; we have known it disappear, also, when an easterly breeze interrupted the course of the hot, dry north-west winds; and, again, it has been dispelled by the first showers of the rainy season.

Fourth Observation.

On the Non-contagious Nature of Spasmodic Cholera.—The Indian cholera possesses none of the characteristics which distinguish the contagious or infectious diseases; on the contrary, it appears to sweep along the surface of the earth, attacking the rich man in his insulated palace, and the poor in his lonely hut; the robust European and the effeminate Hindoo, wherever it finds either incapable of resisting its prostrating power. It is not confined to cities or to camps, it appears suddenly, remains until disturbed by some new motion in the atmosphere, and then vanishes without leaving the power in its victims to communicate any form of disease to their fellow-creatures. No instance has come under the observation of the author, where the diseased person infected another, and the immunity of the attendants, as well as of the friends of the sick, who often crowd around the death-bed of their unfortunate comrades, sufficiently proves, that the spasmodic cholera of India is neither propagated by contact with the diseased person, nor by the exhalations from his body.

Fifth Observation.

On the Sporadic Form of Spasmodic Cholera.—A case of cholera may now and then be met with, in the healthiest season and situation, in which the disease frequently assumes its worst form, although the patient had, to all appearance, previously evinced no predisposition towards it. Are we here presented with an instance of the development of a latent impregnation? or must we admit that, by the local existence of the choleric miasm, an individual, to all human appearance in the most perfect health, may be taken in a very few hours from among thousands of lookers-on, who, amidst the delights of the healthy winter season of India, bury and forget the disease and its solitary victim!

Sixth Observation.

On the Premonitory Signs of Spasmodic Cholera.—There exists, in some few instances, for several hours, or even for some days, before the attack of collapsed cholera, a dark crescent under the eyes, and a shrunken aspect of countenance; but of upwards of a thousand men, with countenances ap-

proaching to anxiety, low spirits, without pain or sickness, or with little of either, detained a day in hospital for observation, during a late choleric season, our author does not remember that, in any one of the number, these symptoms terminated in spasmodic cholera.

SEVENTH OBSERVATION.

On the Symptoms of Spasmodic Cholera.—The disease generally makes its attack suddenly, with great prostration of strength and purging of turbid greenish water, attended or quickly followed by vomiting of a whey-coloured fluid, these evacuations, in the first instance, containing portions of the natural contents of the primæ viæ. Spasms of the extremities and universal collapsion quickly succeed; the eyes lose their lustre, sink deep in the sockets, and are surrounded, in the direction of the orbicularis, by a livid circle; the skin contracts over the muscles which are universally shrunken; the countenance assumes a ghastly expression; the tongue is slimy or dry, and soon becomes cold; the thirst is intolerable and cannot be quenched; the urine is suppressed; the hands are blanched, shrivelled, cold, and clammy; the pulse threadlike, irregular, soon becoming imperceptible at the wrists and temples; and the restlessness is indeed terrible to bear. After an uncertain time the spasms and evacuations cease, the breathing becomes hurried, the mind loses its equilibrium, and increased restlessness or insensibility lead to the final catastrophe, generally in a very few hours after the attack.

A milder form of Cholera is ushered in by the symptoms common to inflammatory fever, with severe cramps of the extremities, after reaching the viscera of the abdomen. Vomiting and purging generally accompany the attack, which is also attended with a sense of burning pain in the stomach. In this variety of the disease, the collapse is less urgent, reaction more frequently takes place, and the patient either recovers or lingers several days.

EIGHTH OBSERVATION.

On the Treatment of Spasmodic Cholera.—An endeavour to throw even a little light upon this dark and cheerless subject, requires that it be considered under the varieties which were noticed in the last observation, namely, cholera with collapsion and cholera with excitement—for although the generalizing plan of treatment has, in theory at least, become so common, that we have heard one authority pronounce bleeding the only remedy for cholera, and another declare that there is nothing to be depended on but brandy and laudanum, yet we cannot force indiscriminately into practice agents so opposite to each other in their effects, without feeling that we are abandoning the laws of scientific medicine, and plunging into a chaos of empiricism where pathological reasoning never entered.

In the collapsed cholera, the stomach and bowels have been unloaded of their natural contents before the physician arrives, and sunken features, cold, bedewed skin, cramps of the limbs, cold tongue, intense thirst, scarcely perceptible pulse, vomiting and purging of whey-like liquid, and universal prostration, are the prominent symptoms.

The indications of cure in such a state appear to be, to subdue the ex-

cessive nervous irritability, and to restore the circulation to its healthy standard.

We must deplore that practical experience has yet found nothing more powerful, in fulfilling these indications, than the means which we are about to enumerate, viz. the combination of calomel and opium, in the proportion of twenty grains of the former with four grains of the latter, administered as early as possible, and repeated according to the urgency of the symptoms and the frequency of its rejection by vomiting; sulphuric æther and aromatic spirit of ammonia, in large and repeated doses, with camphorated emulsion; magnesia suspended in any stimulating aromatic water; and brandy, wine, and other stimulants of that class, in sago gruel. Clysters containing the turpentine and castor oils, with or without assafœtida or opium. Blisters from hot water, cantharides, or mustard, applied to the abdomen, spine, or soles of the feet; a continued warm stimulating friction over the surface of the limbs; and warm bricks applied to the extremities and to the hypochondriac regions. If the irritability of the stomach subsides under this treatment, calomel and colocynth, castor oil and tincture of jalap, or any other cathartic which has the power of accelerating the flow of bile into the intestines, is administered until the excretions resume the feculent and bilious appearance, when recovery usually takes place under the use of the light aperient tonics, and the common attention to diet and regimen.

In the febrile form of cholera we are generally presented with a robust person writhing in the agonies of violent tonic spasm especially severe in the calves of the legs. The patient's countenance is flushed and desperate; his pulse is full and frequent, and vomiting and purging are often, but not always present. To hesitate here whether the abstraction of blood, or the administration of stimuli is the better practice, is, in all probability, to sacrifice the patient, for happily this form of cholera is more amenable to the remedial means which we possess. Blood is drawn until the spasms relax, or the excitement gives way, and the recovery is promoted, by exciting the action of the liver and allaying the inordinate irritability of the system. If however collapsion supervenes, stimulant and antispasmodic means are employed, as if the disease was in the first stage.

There is yet another state in spasmodic cholera, where the abstraction of blood becomes indispensible, namely, when the efforts of Nature and the powerful stimulants which have been employed to excite or assist these efforts, bring on a reaction in the system which endangers the safety of the brain. In this case a strict antiphlogistic plan of treatment is necessary, keeping in mind, however, that the vital powers have been artificially excited, that the reviving constitution will not bear much depletion, and that the oppressed brain will probably be more effectually relieved by taking blood from the head, than by large bleedings from the arm.

It would be superfluous to enumerate the palliatives which are usually employed in the last stage of cholera, to alleviate the more distressing sufferings, and smooth the passage to the grave; but we must not pass over in silence the claims of two remedial agents to a more extensive trial than they have yet met with in this disease, viz. the inhalation of diluted oxygen, or nitrous oxyd gas; and the application of the vapour of subliming cinnabar to the surface of the body.

The author concludes this observation on the treatment of cholera with the remark, that the already too wide field of practice, in this disease, is extending, is yet untrod by a master, and offers to the physician who may be called to labour in it, materials in one short season for an age of reflection.

NINTH-OBSERVATION.

On the Appearances after Death in Spasmodic Cholera. Scarce has the victim of cholera ceased to breathe, in India, when the livor of decomposition begins to make its appearance, and at six hours after death dissection generally presents the internal parts of the body in the following state. The vessels of the cerebral envelope are turgid with dark-coloured blood; the brain is firm and sound; its vessels are also more or less loaded. The lungs are sometimes inflated, at other times collapsed, their blood-vessels are full of dark-coloured blood, and their minute vascular structure is blanched with water; the coronary vessels are gorged with dark liquid blood, and the heart and large-blood vessels contain more or less of the same fluid. The liver appears of various sizes and colours in different subjects; its vessels are full of dark incrassated blood, and the gall-bladder is distended with viscid bile. The villous coat of the stomach is more or less suffused with a slight erethematic blush, especially about the cardiac orifice; this viscus contains a quantity of whitish turbid water, with a fatty scum, and in the most rapid cases food and medicine, on which digestion had made no impression. The inner surface of the small intestines exhibits also a slight inflammatory tinge, and the whole tube contains more or less of the peculiar wheyish matter, with a viscid pulp so adherent to the inner surface, that it seems to be a partial solution of the villous coat. The spleen appears to undergo but little change during the attack of cholera; in instances it is sound, in others converted by chronic disease, into an almost inorganic mass. The urinary bladder is empty and contracted; and the muscular structure of the body is firmer and darker-coloured than in the healthy state.

The author is of opinion that the congestion in the encephalic vessels for the most part immediately precedes and produces death in cholera.

We have given the substance of Dr. Smith's paper almost entirely in his words, since the language could not be condensed, and the matter appears valuable.—ED.

IX.

CASES ILLUSTRATIVE OF THE EFFICACY OF VARIOUS MEDICINES ADMINISTERED BY INHALATION IN PULMONARY CONSUMPTION, &c. By Sir *Charles Scudamore*, M. D. 8vo. pp. 113. Dec. 1830.

THE total want of success that has attended all specific measures as remedies for real and unequivocal tubercular phthisis, generates a kind of prepossession against every new proposal. The specious, but we think fallacious

argument in favour of the direct application of medicinal substances to the seat of the disease, loses much of its force, when we consider that the excavations left by the softening down of tubercles are not like ulcers on the external surface of the body, which may be cleaned with a sponge or lint, and then dressed with specific ointments. The atmospheric air has very little access to tubercular excavations, which are constantly secreting pus, and for the most part of the 24 hours filled more or less with the same. To expect that iodine can have any effect in healing these excavations, is beyond our faith. Then as to tubercles that have not yet softened down, is it likely that vapour impregnated with iodine and drawn into the air-passages, will have more effect in softening them down than when the medicine is taken into the system by the stomach, and made to permeate the whole vascular system? We much doubt it.

Sir Charles Scudamore has chosen a very unfortunate time, as far as professional feeling is concerned, for bringing forward a system of inhaling for the cure of consumption; since even the Marquesses and Marchionesses are beginning to be ashamed of the quackeries of St. John Long. To mend the matter, Sir Charles has most imprudently chosen to throw a certain degree of mystery about the preparation of iodine to be employed, and the mode of using it, which has generated a very strong feeling of disapprobation among his professional brethren. The reasons which the author assigns for this procedure, are far from satisfactory. He says that if he unequivocally made known the recipe and the mode of employing it, patients might send to the chymist instead of the physician, and employ it without proper discrimination—by which means discredit might be brought upon a useful remedy, if judiciously applied. But Sir Charles forgets that the same argument might be brought against every remedy in the Pharmacopœia. On this plan the preparations of mercury, their doses, and the modes of employing them in syphilis, hepatitis, and fifty different complaints, ought to have been kept secret, lest non-professional people should tamper with their own health, and employ them unskilfully! In short, the argument is totally untenable; and every physician who means to keep up the respect of his brethren must divest his discoveries and his experiments of every shadow of mystery or concealment. Sir Charles should instantly add an appendix, developing the minutest process employed by him in the inhalation of iodine —though we have very little hope that the remedy will be of any material use in phthisis.

After these remarks, it will not be expected that we should go into a detailed analysis of the work before us. We shall, however, in justice to the author, select two cases, the third and the sixth, which he evidently considers as the least equivocal in favour of iodine inhalation, as a remedy for phthisis, and then our readers may judge for themselves.

"Case III. *Hæmoptysis, succeeded by ulceration; hectic fever, well marked; from all concurrent symptoms the existence of phthisis pulmonalis established; the curative powers of iodine inhalation strongly displayed.*

A female, aged thirty-four, of delicate form, with rather narrow yet not an ill-formed chest, of fair complexion, with dark eyes and white teeth, the mother of several children, having been much debilitated by three miscarriages within the last two years, and suffering from a severe cough, consulted me in February of the present year. In the history of her

case, she related that, four years ago, she first contracted a violent catarrhal cough, which had since continued always troublesome, with the exception of an intermission in the summer months; that in January she had coughed up blood to the amount of a teacupful; and from that time had been affected with constant cough, pains of the chest, with quickened and difficult respiration frequent palpitation of the heart, inability to lie on the right side, and one very distinct paroxysm of hectic fever in the middle of the day, and a slighter one in the evening. There were copious night sweats: she was much wasted in flesh: the catamenia had been suspended two months: the pulse was 120; the animal heat 99°: the expectoration was in quantity about four ounces in the 24 hours, of a general puriform appearance, and gave a ring of colours in the optical experiment: the digestive functions were not much disturbed; but the urine deposited much lateritious sediment.

The following indications appeared from the stethoscope and percussion:* the voice was brought distinctly under the tube at the apex of the right lung, and there was obscure *gargouillement* at that part. The sound was dull at the upper part of the right lung, and very remarkably so on percussing the clavicle. The left lung was comparatively in a healthy state.

I prescribed a weak solution of iodine for the inhalation; internally, from one to two minims of the solution of acetate of morphia; and the following draught before rising in the morning:—

℞. Magnes. Sulphat., ʒi.
Infus. Rosæ, ʒxii.
Acidi Hydrocyan. ♏ⱡi.
Syrupi Tolutan. ʒi—M. fiat haustus.

The chest all round was washed night and morning with the compound vinegar lotion.

The diet was limited to boiled fish, vegetables, and farinaceous puddings. At the end of a few days she found herself improved, and particularly as to the greater facility of expectorating, more ease of chest, and better respiration. The cough, however, still being very irritable, I added conium to the inhalation.

The mitigation of the symptoms was now very obvious; and, at the end of a fortnight, the amendment was great: but about this period she took cold, and suffered severely for twenty-four hours from disorder of the bowels and from spasms which appeared to proceed from uterine irritation. The cough became more irritable; but otherwise the pulmonary symptoms were not aggravated. I changed the inhaling mixture for one consisting of conium and prussic acid. This indisposition soon yielded to treatment, and the iodine inhalation with conium was resumed, and with an increased proportion of iodine. At the end of a month her appearance was remarkably improved, and all the symptoms were relieved. The pulse was reduced to 80; the animal heat to 95°; the respiration appeared unembarrassed; the cough was comparatively slight; the sputa small in quantity and much improved in character; there was no longer hectic fever; and the night sweats were much lessened. She had gained flesh, and some improvement of strength; yet she still complained of great debility.

She had been most attentive in the use of the inhalation three times a day, and extolled it as the source of her improvement. For the last week she had discontinued the morphia at night, and took no other medicine than the mild aperient draught occasionally. The most urgent symptoms being subdued, I now directed my attention to the improvement of the strength. I prescribed the following draught:—

℞. Acidi Hydrocyan. ♏ⱡi.
Decoct. Cinchon. ℥i.
Mist Amygd. ℥ss.
Aquæ Menth. virid. ʒii.—M. fiat haustus bis die sumendus.

* "In this and some of the following cases I had the advantage of an examination

She was desired to use the inhalation only twice in the day. She took mild animal food each other day, and at dinner two ounces of old port in a tumbler of cold water. She continued the use of the vinegar lotion. She took carriage exercise when the weather was favourable, and walked out occasionally.

In another fortnight I prescribed a saline bark draught, omitting the hydrocyanic acid, and allowed her to take meat or poultry every day. She continued to amend regularly. The catamenia returned. Three months having elapsed, she had recovered so completely that no further treatment appeared to be necessary. For the last week she had inhaled only once a day. She improved in flesh, and was so much stronger, that she declared herself better in health altogether than she had been for six or seven years.

This lady having removed to a distant part of the country, I have no opportunity of ascertaining the present state of her chest by auscultation; but I have the satisfaction of hearing that she continues perfectly well." 25.

CASE VI. *Phthisis Pulmonalis; Tubercles in each Lung; great probability of an Ulcer at the apex of the Right Lung; Hectic Fever present; the Iodine inhalation highly beneficial; the Tubercular Irritation removed; and the patient restored to health.*

A gentleman, aged forty-nine, short and slight, and evidently of weak constitution, subject to winter cough, was seized with hæmoptysis some months before the attack of illness which I am about to describe; but the discharge of blood was not large, and did not continue beyond twenty-four hours. He appeared to recover his usual state of health, which was always delicate.

I was consulted in June, and found him affected with very irritable cough, short breathing, a painful state of the chest, with oppression, very disturbed sleep, and night perspirations.

The digestive functions were not materially impaired; yet the appetite was not so good as usual, and the urine deposited lateritious sediment. The bowels were regular, and the liver acted properly.

The expectoration was copious, consistent, of greenish appearance, of faint, disagreeable odour, and it afforded a coloured ring when examined as before described.

He complained of great debility. The pulse was only 60; but I learnt that in health it was of the remarkable slowness of 44 and 46. He had a hectic paroxysm about noon every day. The animal heat was 100. His habits were very temperate; and for many years he had refrained from all fermented liquors.

The following were the indications by the stethoscope and percussion: pectoriloquism at the apex of the right lung, and suspicious at the apex of the left; dull sound in general on the right side, especially at the upper part; dull also at the upper part of the left lung. I drew the conclusion that each lung was tuberculated; that tubercles occupied the right extensively; and that there was, in all probability, some ulceration at its apex.

I directed a blister to the chest; a minim dose of hydrocyanic acid, at noon and at night, in infusion of roses, adding to the day draught some sulphate of magnesia. I prohibited animal food. He entered immediately on the use of the iodine inhalation combined with conium. I enjoined great quiet; for he found himself unfavourably excited by any bodily exercise or by mental exertion.

The chest was much relieved by the blister. On the healing of the skin, I directed the use of the compound vinegar lotion, to be applied just tepid, and afterwards the use of the flesh-brush. He was sensible of a very soothing influence from the inhalation: it caused an easy expectoration, relieved the cough most satisfactorily, and rendered the breathing at once comfortable.

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by Dr. Edwin Harrison, in whose long experience and great tact in auscultation and percussion I have the highest confidence."

In two days, the pulse was 56; the animal heat 98°; the sputa of a creamy white, and still of a faint odour. The tongue was coated with whitish flakes, and the gums were spongy, as if from mercury: but there was no ptyalism. This state of the tongue and gums was in part produced by the inhalation; an effect, particularly as regards the tongue, which I have occasionally witnessed. But these effects either pass away, or become too slight to be regarded, as the patient becomes accustomed to the use of the inhalation.

As there appeared to be yet too much excitement in the system, I increased the dose of hydrocyanic acid to three minims twice a day; but I did not continue these proportions more than three days; for, as the symptoms abated, I resumed the dose of one minim.

The whole plan of treatment agreed perfectly. In a fortnight, the state of the patient was surprisingly ameliorated; and the appetite was much improved. I allowed him to eat boiled fish or mild animal food, on alternate days.

At the end of three weeks, the amendment was still more confirmed. The pulse was reduced to its natural standard of 44; the animal heat to 97°; the respiration was quite comfortable; the cough very slight; the sputa small in quantity and consisting chiefly of frothy mucus; the nights were passed with good sleep and freedom from perspiration; the tongue was almost clean, and the gums nearly restored to their natural state, although the inhalation had been regularly continued three times a day; the urine was clear.

I never witnessed in so short a time such a happy change in the looks as this gentleman displayed. The hectic flush of the cheek had passed away; there was a cheerful expression of countenance; and there was some recovery of flesh. He spoke in the highest terms of praise of the inhalation; and, as this gentleman was very intelligent, and minute in his observations, I attached the more importance to his report. He stated, that it invariably gave ease and comfort to his chest; quickly improving the breathing, and relieving the cough.

The circulation being now free from excitement, and the opportunity therefore presenting itself for the adoption of more restorative means, I prescribed the infusion of the cortical part of sarsaparilla in lime water, with the addition of the strong syrup of the cortical part, and Brandish's alkaline liquor, to be taken twice a day, in admixture with an equal portion of hot milk.

The patient continued to improve progressively in the most favourable manner. Not one untoward circumstance occurred. He reduced the use of the inhalation to twice a day, in three weeks from the commencement; in five weeks, to once; and discontinued it wholly at the end of two months. At this period he was free from all symptoms of illness; quite relieved from cough, with recovered flesh and strength; the pulse at its natural standard of 44; the animal heat 96°; the appetite, the digestive functions, and the sleep, all natural. At the present time (October,) he continues to find himself in much better health than he has been for two years past. His breathing is so greatly improved that he can walk six or seven miles a day without inconvenience." 48.

We have now exhibited two of the best cases in the book, and, at an earlier period of life we should have been inclined to cry out EUREKA! Recollecting, however, the host of cases, still more decidedly phthisical than the above, which were cured at Bristol, by Dr. Beddoes, some twenty or more years ago, and by a somewhat similar process—remembering that every year, since the commencement of our practice, some infallible panacea or mode of treatment has been proclaimed for a disease that is almost invariably fatal, we have read the above, and all the other cases narrated by Sir Charles, without being elated, and without being convinced. The inhalation of soothing and medicinal vapours may prove useful, in various affections of the air tubes and their lining membrane, and the publication before us will, no doubt, excite ardent hopes in the hectic breast. So far it will

be very beneficial, in the pecuniary point of view, to the author; but we doubt much, whether it will add permanently to his fame, in the records of medicine.

X.

Dublin Medical Transactions; a Series of Papers by Members of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland. New Series, Vol. I. Part I. 1830.

If the metropolis of the Sister Kingdom has evinced a remarkable anomaly, as respects metropolitan cities in general, in being without a periodical journal of medicine, it has, in a great measure, made up for this defect, of late years, by the issue of several very valuable volumes of Transactions. These, indeed, may be considered as annual medical journals dedicated solely to original communications, and unconnected with the other departments of periodical literature. We agree with the editors of the present series, that by such a publication, "many useful essays have been rescued from oblivion, and many able practitioners have been invited to observe and to inquire." They have to regret the decease of one of their most able and zealous coadjutors and fathers of the work, Dr. Brooke, whose funeral eulogy was pronounced—or at least composed by Dr. Morgan.

Though the present volume be not quite equal to some of its predecessors, it is highly respectable, both as to the names of the contributors and the materials of the communications. In this first notice we shall select a batch of short papers for analysis, throwing the longer and more important ones into separate articles.

1. *Two Cases of Recovery from Laceration of the Uterus and Vagina.* By Robert Collins, M. D.

Case 1. A female, aged 25 years, was admitted into the Lying-in Hospital of Dublin, with the hand and arm of the child protruding out of the vagina, as far as the elbow. It was reported that the midwife had mistaken the hand for the foot, and pulled it down. When admitted, she was in a very debilitated state, with feeble pulse, ghastly countenance, and great anxiety. Rupture of the uterus or vagina was suspected. She had got 60 drops of laudanum before she was admitted.

"On examination, per vaginam, the shoulder and body of the child were found to be forced so low, and so firmly fixed in the pelvis, as to completely forbid any attempt to turn the child, nor was there any necessity to do so, as it was dead.

The thorax of the child was then perforated and broken down, and the breech was afterwards brought down with the crotchet, without the least difficulty.

On introducing the hand into the vagina after the child and placenta were taken away, an extensive laceration was found at the junction of the cervix uteri with the vagina posteriorly.

I placed the parts as nearly as possible in their natural position, guarding carefully against any portion of the intestines being included in the lacerated part, at the same time removing as much of the clotted blood as could be got away.

It was evening when she was admitted into the hospital, and after the delivery, &c. was completed, and her bed made dry, she was ordered a powder containing ten grains of calomel, and the same quantity of jalap, which remained on the stomach, and operated freely on the bowels." 2.

Next morning there was much tenderness of abdomen, and 36 leeches were applied, succeeded by the warm-bath, fomentations, &c. by which much relief was obtained. The pulse gradually returned to its natural state, and she left the hospital perfectly well, on the 23d day after delivery. After three months she presented herself in perfect health. There were no other means used in this case, except attention to the bowels and diet.

Case 2. Ann Wood, aged 30, was admitted in labour of her sixth child, at six o'clock in the evening of the 27th October, the labour having commenced seven hours previously.

"When she came into the hospital the uterus was acting briskly, and the head of the child advanced rapidly, so much so, that those who were in attendance thought it would have been expelled every pain. Suddenly, however, the uterine action completely ceased, and considerable debility, great distress of countenance, vomiting, and other symptoms strongly indicating rupture of the uterus ensued.

The head of the child was low down, and pressing on the neck of the bladder, so much so, that the catheter could not be introduced, and as immediate delivery was necessary, the head was lessened, and the child brought away with the crotchet. The uterus assisted strongly in expelling the child and placenta; however, on introducing the hand into the vagina afterwards, a most extensive laceration was found at the junction of the cervix uteri with the vagina anteriorly, and the intestines had fallen through the opening into the vagina.

After returning the intestines carefully, the edges of the laceration were brought as nearly as possible in contact, and the patient was enjoined to remain perfectly quiet during two hours on the couch where she was delivered. She was then cautiously carried to bed, and a powder containing eight grains of calomel and fifteen of jalap, with half a grain of powdered opium, administered." 5.

29th October. The pulse was 114 and feeble—had rested badly—abdomen distended, and tender on pressure—bowels not opened. Castor oil and tincture of jalap were prescribed internally, and 36 leeches were applied to the abdomen, after which she was put into the warm-bath. In the course of the same day the leeches were repeated, and various other means were used to keep down inflammation. We need not follow up the dismal details of the treatment, which was apparently energetic and judicious. It is sufficient to say that, on the 15th and 16th days after delivery, there was a very considerable discharge of unhealthy pus from the vagina, to the amount of a pint in the first instance, but less in the second. This, however, did not interfere with the recovery, and, after the first twelve days, she took nourishment liberally, with tonics and acids.

"In the majority of cases where laceration of the vagina or uterus takes place, the bowels yield with difficulty to the effects of medicine, and in many instances it will be found

quite impracticable to purge the patient, with the largest doses of the most drastic purgatives, until death is near at hand, and then the medicines begin to act violently.

It is an object of the greatest importance, in such cases, to have the bowels early opened, and afterwards to keep up their action by mild purgatives, at the same time using every means in our power to counteract inflammation, and no means are more likely to do so than those already mentioned.

In both cases, it may be observed, that the same plan of treatment was pursued; and it cannot be too strongly recommended to the notice of professional men, that early and active means of counteracting the dangerous and sudden inflammation, that sets in, in all cases of this kind, is a matter of the utmost importance.

In the above instances, when the tenderness of the abdomen was subdued, the dangerous symptoms gradually subsided, and it is singular, that in both it was nearly removed about the end of the fourth, or in the course of the fifth day after delivery.

If possible, the practitioner should avoid letting the child escape out of the uterus, into the cavity of the abdomen in the delivery; sometimes it unavoidably does escape as soon as the accident takes place, but in many instances it may be prevented, by using caution during the delivery, particularly in those cases where we perforate the head.

The opening should be made as much at the side as we can, so as to cause the opposite side of the head to press against the pelvis, and at the same time having an assistant to press strongly on the abdomen of the patient, to keep the uterus as fixed as possible. The perforator should not be pressed with great force against the head, lest it should suddenly recede.

In cases of this kind, attempts have been made to deliver with the forceps, but the introduction of the blades generally forces the child's head out of reach. The child dies also shortly after the laceration takes place, and the dimensions of the pelvis are often defective —all which circumstances prove their inutility in most cases.

When the child escapes out of the uterus into the cavity of the abdomen, it is now the general practice, and undoubtedly the best, to introduce the hand cautiously through the lacerated parts into the abdominal cavity, and bring down the feet of the child, and the sooner this is done after the accident the better. In such cases, much care should be taken to return any of the intestines that fall through the lacerated part into the vagina, otherwise strangulation may take place." 9.

Some cases occur, where the laceration takes place previous to dilatation of the os uteri. Here, it is thought, the patient would have a better chance of recovery by opening the parietes of the abdomen, cutting into the uterus, and extracting the fœtus. This is so rare a case, that no instance of it has occurred since Dr. Collins has been attached to the hospital; nor is there any instance of it recorded by Dr. Clarke, in his valuable abstract, during his seven years' mastership. Generally, the os uteri is so much dilated by labour pains, as to enable the attendant to introduce his hand without difficulty.

A third case of recovery from laceration of the vagina, under similar treatment, occurred lately in a poor woman out of the hospital, and where the laceration was so extensive, that the hand passed into the cavity of the abdomen without the least interruption. The patient lived till the 29th day from the injury, when she was suddenly attacked with hæmorrhage, and died in 15 minutes. She was walking about for four or five days previous to death—had a good appetite—and was, in other respects, tolerably well in

health. No examination could be obtained. Many cases of vaginal and uterine laceration have proved fatal during the last three years; but, as our author is preparing an abstract of all the different cases that have occurred, with some practical observations, he abstains from noticing them at present. Eight thousand women were delivered at the above institution during the period alluded to.

II. *Two Cases of Pulmonary Apoplexy, illustrative of the Value of Mediate Auscultation.* By JOHN C. FERGUSON, A.M. M.B. &c.

The first case was that of John M'Cleary, a sailor, aged 36 years—a robust man. Through the past Winter and Spring, Mr. F. had given this man some medicines of an aperient and expectorant quality—the latter for bronchitis. He applied at the Coles' Lane Dispensary on the 19th of June, 1829, complaining of costiveness and cough, with oppression about the chest, sanguineous expectoration—pallor of countenance—cold, clammy perspiration—feeble pulse at 90. Purgatives were prescribed.

"Trusting to what I knew of his history, and to former examinations of his chest, I made no Stethoscopic examination this day, (a circumstance which I shall ever regret,) and we agreed in attributing the exacerbation of his general symptoms, as perhaps we were justified in doing, to some previous excess. I heard no more of him until sent for in haste on the Sunday morning following. I found him dead; and it is worthy of remark, that although two hours had not elapsed since his decease, the rigidity of the body was considerable. A neighbouring apothecary had attempted to bleed him, but unsuccessfully. I was told he had passed the preceding night rather restlessly; however, he had his breakfast of soup and bread, and in the act of putting on his shoes, complained to his wife of loss of vision; seemed to faint, and died without a struggle. During Saturday, he had expressed himself relieved by the operation of the purgative medicines, and, what is a remarkable fact in the history of this case, he had expectorated no blood for fourteen hours before death, nor in the agony was there any escape of blood from the mouth or nares, which might lead to a suspicion of the real seat of disorganization.

Examination fourty-eight hours after death, in which I have to acknowledge the valuable assistance of my friend Dr. Law.

The body of a robust man; putrefaction had considerably advanced, particularly about the neck and shoulders, where a degree of emphysema was produced by it.

HEAD.—Not examined.

CHEST.—The left pleural sack contained about three quarts of blood; the serum supernatant to a great degree, as in blood allowed to stand after venesection, and the clot in considerable quantity, but very soft, occupying the most dependent portion of the cavity. This lung had contracted no adhesions, and on carefully raising it out of its situation, and dissecting it out by its root, the following appearances presented themselves to us. The superior lobe was one mass of the most perfect pulmonary apoplexy; the structure of the lung seeming to be absolutely broken up by the excessive effusion of blood into it. The appearance which this disorganized part put on differed, however, in some respects, from the description of pulmonary apoplexy given by Laennec. Speaking of this form of disease, he says,—'This alteration of structure consists in a degree of hardening of the lung, equal to that of its most extreme state of hepatization; but in other respects quite different. It is always partial, and but seldom engages a large portion of the lung.' Now, in the present case, so far from resembling the firmness of an hepatized lung, the apoplectic mass was ex-

ceedingly soft and flabby, much more like a clot of blood. It would scarcely bear to be incised, but broke down under the scalpel or finger as easily as, and indeed with a striking similarity to, the coagulum of blood which has stood for a time after venesection.

It would appear to me, that this softness of the diseased part, in this and similar cases, might be accounted for by the fact, of so great a quantity of blood having been effused into the pleural sac, which had thus escaped coagulation under that degree of compression, to which, in ordinary circumstances, it is exposed, being confined by the serous covering which encompasses the lung. This compression, existing as it does in the great majority of instances, may, in my mind, principally tend to produce that firmness generally presented by specimens of pulmonary apoplexy; but being to a great degree removed in the present case, by the laceration of the pleura, an opposite effect was produced.

Again, the entire superior lobe of the lung was engaged, so that I should be rather inclined to consider this as an instance of the uncircumscribed form of the disease, noticed by my friends, Drs. Graves and William Stokes; for the line of separation between the superior and middle lobes, was the exact line of demarcation between the diseased and sound lung.

But what most attracted our attention, and, in my mind, gives its peculiar interest to this case, was, that in the superior and posterior part of the affected lobe, we found a laceration of the investing pleura, of about one inch in length, and half an inch in breadth, with very irregular edges, and immediately opening upon the point where the sanguineous effusion into the substance of the lung seemed most intense, and where we might naturally expect the greatest violence to be offered to its serous covering. This was evidently the source whence the blood, shed into the pleura, had come; for on examining as accurately as possible, we could discover the rupture of no vessel.

In this, and similar cases, are we to consider that the blood is the product of a general exhalation from the vessels of the part engaged? Are we to refer it to the rupture of a vessel of any considerable magnitude in the lung's substance? Or are we to attribute it in any, and in what, degree to that sudden expansion of the blood itself, to which Laennec refers, as being probably an influential cause?

This lung in other respects was healthy, though generally congested, as indeed was the right. The latter had contracted several old adhesions. The heart was sound and empty of blood. Blood of the body generally fluid." 15.

Case 2. Margaret O'Neil, aged 56 years, November 10th, 1828. She had complained, for two months past, of symptoms of chronic bronchitis, which were always relieved by purgative medicines. Yesterday she was seized with considerable hæmoptysis, which still continues. The pulse is 110, weak and small—countenance pale and anxious. The following indications were noted on examination.

"Percussion.—The entire chest sounds well, save the left subclavian region, which is dull.

Auscultation.—The respiratory murmur in the greater part of the superior lobe of left lung is either absent or very feeble; in points, a well marked râle crepitant is heard, and more particularly around the part where respiration is absent; puerile respiration in the rest of same lung, with heavy mucous râle about the leading bronchi. In the right, in spots the râle sonore is heard.

From this examination I could not hesitate in making my diagnosis, pulmonary apoplexy, and despite the age and considerable debility of the poor woman, I took sixteen ounces of blood from her arm, which induced faintness. I was encouraged in my decision to bleed her by observing, that the strength of the heart's action, as examined by the stethoscope, was disproportioned to the smallness and weakness of the pulse—an observation which, I well recollect to have first heard made, and in more instances than one practically illustrated by Laennec in his clinical wards of La Charité, and which I believe

never should be omitted in deciding on a venesection in all cases of hæmorrhage. I prescribed a brisk purgative bolus and draught; and after their operation, a cough mixture, with three grains of tartar-emetic to the twelve ounces; two table spoonfuls to be taken every second hour. The strictest abstinence was enjoined." 17.

11th. Hæmoptysis greatly diminished—expresses herself relieved—bowels well opened—tolerates the emetic tartar. The stethoscope indicates no particular change since yetesrday. Raised the dose of emetic tartar to six grains in the 12 ounce mixture. 12th. Hæmoptysis has almost ceased. The left subclavian region sounds clearer on percussion—and the râle crepitant is heard more feebly all over it. Pulse this day 96—she craves for food. From the 15th the convalescence of this patient was uninterrupted.

"The first of these two cases presents to our view a pathological fact of importance and great interest. It is one of, I believe, the very rarest occurrence. Laennec admits the possibility of such a thing taking place, but he never met it; nor am I aware of any such case being recorded in the annals of Medicine, save one by Corvisart, in his translation of Avenbrugger's work on Percussion.

In comparing the two cases together, we find a striking similarity in the general symptoms presented by each; except that in the former, the fatal case, the hæmoptysis was very slight; and it would seem to me that this very circumstance forcibly points out out to us the value, nay, the necessity of a stethoscopic examination, to the formation of an accurate diagnosis. For it is undeniable, and the case of M'Cleary is a remarkable instance of it, that even a fatal degree of pulmonary apoplexy may be present without any, or with but very slight, hæmoptysis. Though the general symptoms, on which I am satisfied an unfounded reliance is too often placed, as well in other diseases of the chest as the present, by no means, in my opinion, indicated the presence of so formidable a disease; yet am I convinced, that had I made a careful stethoscopic examination of M'Cleary on the day he first presented himself to me at the dispensary, and not contented myself with general symptoms, I should have detected some traces of sanguineous engorgement of the lung, sufficient, unquestionably, to have induced me to adopt a line of treatment different from that pursued.

Granting the possibility that all the symptoms which this man presented on Friday, including the hæmoptysis, might be present without the existence of pulmonary apoplexy, and consequently that a stethoscopic examination on that day might have thrown no light on the case; yet would I ask, is it not much more probable, nay, does it not amount almost to a certainty, that the disease had been for some days making its insidious advances; that the day he was seen at the dispensary points of pulmonary apoplexy already existed, and that the excessive effusion of blood, which was so violent as to rupture the pleura, and induce fatal hæmorrhage into its cavity, was superadded to previously existing disease; the sudden effect of some unkown cause, perhaps a rush of blood to the superior parts of the body, to which the attitude in which he was seized, namely, stooped down to tie his shoes, was most favourable? And if we admit this, which, I must confess, the whole bearing of the case almost demonstrates to me, a stethoscopic examination made on Friday would have enabled me to form a diagnosis, which would, no doubt, have suggested the employment of curative means, calculated if not entirely to avert the attack of Sunday, at least to render it, I think it but fair to infer, amenable to active treatment." 20.

Dr. Ferguson appends some useful observations on venesection in this formidable disease. This is, no doubt, the most powerful remedy we possess; but, in few diseases is its employment less markedly indicated by the general symptoms—hence the greater necessity for, and utility of, auscultic investigation. For one case of this disease, where the symptoms of plethora

are unequivocal, we meet with many where every symptom contra-indicates sanguineous depletion. It is hardly necessary to remark that, under such circumstances, the practitioner is thrown off his guard—pursues a wrong plan—and by tonics and stimulants, adds to the existing evil.

III. *Case of Melanosis.* By JOHN CRAMPTON, M. D. &c.

The patient, D. Brown, a weaver, aged 34 years, was admitted into the WHITWORTH CHRONIC HOSPITAL, on the 28th June, 1828, labouring under ascites to a great extent, the disorder being of six years' standing. A part of the abdominal distension evidently was owing to enlargement of the liver, the margin of which could be traced into the left hypochondre, which it completely filled, extending down, on each side, nearly to the spine of the ilium. Several tumours were felt on its surface—there was no pain; but some incumbrance from an enlarged organ. The breathing was laborious; but the lungs appeared sound on auscultatic examination. He had been very intemperate in the use of whiskey. Dr. C. considered the case as one of tuberculated liver, with consecutive ascites, and therefore fatal. On the 26th July, the distress from distention was so great, that paracentesis was performed, and four gallons of fluid drawn off, affording instant relief—but next day he complained of "soreness inside of the belly"—and the tumours could now, of course, be more distinctly felt than ever. He died a few days afterwards, the pain and soreness gradually increasing—so that the immediate cause of death appeared to be peritonitis—no very infrequent consequence of tapping, in bad constitutions.

DISSECTION. "THORAX.—The pleuræ were studded with black tumours, each about the size of a pea; when cut into, they resembled coagulated blood; the lungs and bronchia were perfectly sound, and the heart natural.

ABDOMEN.—On opening this cavity upwards of a gallon of fluid was discharged. The surface of the contents of the abdomen, was covered with immense flakes of lymph, which appeared quite recently formed. This adhered every where in bands, and glued the intestines together and to the liver. The peritoneum was of a brownish colour, covered with a false membrane, which was easily scraped off with a knife.

The mucous membrane of the stomach was very vascular, that of the intestines did not present any thing very remarkable, their serous covering, however, was much thickened.

Nearly two-thirds of the abdominal cavity were occupied by the liver; the right lobe extended up into the corresponding side of the thorax, compressing the lungs on that side to half their natural dimensions. This immense viscus stretched across and occupied the whole epigastrium, and reached fully two inches below the umbilicus to within an inch of the spine of the ilium on both sides. On its surface it was thickly studded with round black tubercles, varying in size from that of a small plumb to that of a middle sized apple. When cut, these tubercles presented a soft pulpy matter, easily broken down, and resembling Indian ink in colour, staining every thing which came in contact with it. The interior of the liver was also studded with these black tubercles, so that when cut, the surface resembled a slice of plumb pudding.

The liver weighed 19 pounds; its circumference was equal to 3 feet 8 inches. Transverse diameter of the under surface 15 inches; antero-posterior diameter along the horizontal fissure 10 inches; that of the right lobe 12¼ inches; that of the left lobe 11½ inches.

The spleen was healthy in structure, but smaller than natural, having been compressed by the liver.

The left kidney contained several calculi in separate cysts, some black, like coal, others of the uric acid kind. Two similar ones were seen in the right kidney. These calculous concretions were found in the tubular portions of the kidney." 26.

Melanosis is not a common disease; nor is it accompanied by any symptoms which enable us to discriminate between it and some other organic changes. Laennec considered it an "accidental tissue"—but Andral objects to this, affirming that it is completely inorganic, and may exist in various forms. In chemical analysis melanosis appears to differ little from the blood itself. We have no knowledge of the mode in which this disease is formed—nor of any means of arresting its course.

IV. *Case of Perforation of the Stomach, and of the escape of a Lumbricus into the cavity of the Abdomen.* By Dr. CRAMPTON.

Jane Elders, aged 50, was received into the HARDWICKE HOSPITAL, on the 24th November, 1828, as a fever patient, having been ill for several days—her bowels constipated—vomiting—intense pain in the abdomen—inflation and tenderness—dry tongue—sharp pulse, &c. The application of leeches stopped the sickness—and aperients cleaned the tongue. On the fifth day after reception, the pain, tenderness on pressure, and frequency of pulse continued, with the addition of diarrhœa. The latter ceased in a few days, but the debility became excessive—she wasted rapidly, and death put an end to her sufferings on the 7th December. On cutting into the abdomen a quantity of puriform matter gushed out, which appeared to have been secreted by an inflamed peritoneum, which was covered by false membranes, and highly phlogosed. The inflammation had spread to the pericardium, into whose cavity pus was effused.

"Upon pressing the liver downwards to push out the matter contained in the abdomen, a large lumbricus worm was squeezed out from the space under the liver occupied by the stomach. Upon examination a round perforation was discovered about the middle of the lesser curvature of the stomach. Externally its margin was smooth and defined, and lined by a membrane which appeared to be a continuation of the mucous membrane of the stomach; internally its margin was also defined, and surrounded by a hard elevated edge, irregular, somewhat triangular, enclosing an aperture into which the worm can be inserted. On the top of this elevated margin one small round ulcer was observed, about the size of a pea. The pylorus was perfectly healthy, the folds of the mucous membrane of the stomach were much larger than usual; but the membrane except round the perforation, retained its healthy colour and consistence.

The whole tract of the intestinal canal, both in its serous and mucous coats, was intensely inflamed. Its entire course was carefully examined, and although containing a quantity of fæces, no worm could be detected." 31.

It is probable that organic disease existed in the stomach, which led to the perforation. It is curious that none of the contents of the stomach had escaped into the abdominal cavity. Dr. C. accounts for it, by supposing that, in the act of vomiting, the perforation was pushed against the liver, which acted as a valve, and prevented the ejection of its contents into the general cavity.

V. *Case of an Anomalous state of the Heart.* By Dr. J. CRAMPTON.

In a boy, aged 10 years, who died dropsical, accompanied by symptoms

of cardiac disease, intimated by palpitation, a pale livid colour, and a very distressed state of respiration, the following anomalous condition of the heart was found.

"On opening the thoracic cavity, the heart was seen to preserve its natural situation, its shape however attracted notice; the upper part of the right ventricle being pushed out in such a manner, as to present externally somewhat of a sugar-loaf shape. On introducing a finger into the pulmonary artery, this vessel was found to be considerably contracted at its entranc into the heart, and appeared to be *destitute of valves*. A finger introduced into the aorta entered freely into both ventricles.

The left ventricle was opened by cutting from the orifice of one of the pulmonary veins, thus laying open auricle and ventricle together. It was then seen in the auricle, that the *foramen ovale was open*. The ventricle was perfectly natural, with the exception of a slight increase in the thickness of its walls; it communicated in the usual way with the aorta, the valves of which were perfectly natural, and it also communicated with the *right ventricle*, in consequence of a deficiency in the upper part of the septum.

On slitting down the right side of the heart, from the superior vena cava, nothing remarkable was observed in the auricle, except its communication with the other auricle through the *open foramen ovale*.

The right ventricle was dilated opposite the deficiency in the septum, into a pouch which corresponded with the sugar-loaf projection observed externally. The pulmonary artery was found to communicate with a separate cavity, bounded by distinct walls, which however was attached to the right ventricle, and communicated with it by means of an opening capable of admitting the little finger, formed under the columnæ carneæ of the ventricle. The lining membrane of this cavity, as well as of the pulmonary artery, was spotted with lymph in several places, which, in the artery, assumed the appearance of warty excrescences.

The pulmonary artery was perfectly destitute of valves; its lining membrane, at the usual situation of the valves appeared a little puckered, constituting the contraction felt on the introduction of the finger. Above the contraction the artery was considerably dilated, and it was in this dilated portion that the warty excrescences were situated.

The symptoms in this boy, James Caffry, who was admitted into the Whitworth Hospital, 25th August, 1828, were the following:—

Complexion livid and sallow; circumscribed flush on the cheeks; face, legs, and whole surface of the body extensively anasarcous; he had been subject to palpitations from his birth, with pain in the left side; breathing very laborious; could not lie on either side, but was easiest sitting up. Pulse at the wrist 140; small and synchronous with the heart's action, but subsequently both gave an irregular and intermitting beat. On inspecting the thorax externally, an obvious difference was observable, and on measurement the right side exceeded the left by half an inch.

On percussion the thorax sounded tolerably well throughout. With the stethoscope, the respiration was generally pure; inferiorly and anteriorly at the left side it was completely masqued by a very loud *bruit de soufflet*, which was also distinctly audible in every part of the thorax and in the neck, but not over the brachial or femoral arteries. The noise also masqued altogether the sound of the heart's action, but its impulse was felt with the instrument. At times, during the course of the treatment, the impulse was tremendous. The *bruit de soufflet* some days was more overpowering; on others it was less so, according to the state of quietness of the patient, or the reverse. On one day a slight degree of *bruit de lime* was heard.

He lived until the 21st September, the dropsical effusion was in part removed, and the heart's action was less tumultuous for a considerable time before his death. A few days previously to this event, the palpitation returned with increased force, whilst his strength declined, and he suffered from diarrhœa. From these symptoms he experienced partial and temporary relief after a profuse perspiration. At length he sunk, worn out and exhausted; he signified, however, that he did not suffer pain. It is quite unnecessary to recite the detail of the treatment in a case so hopeless, as it was merely palliative." 37.

The chief interest in this case arises from the consideration that life should have been maintained for ten years, with an organ so imperfect as the heart was found to be.

For various other papers in this volume we must refer to other articles, and some to other departments of this journal, where they will receive a very full analysis, with the exception of a prodigiously lengthy paper of Dr. Corrigan, on the sounds and motions of the heart. We were never converts to his doctrines, and they are even now beginning to be forgotten —or at all events, to be disbelieved.

XI.

SPASM OF THE GLOTTIS—CONVULSIVE CROUP.

I. OBSERVATIONS ON A PECULIAR CONVULSIVE DISEASE AFFECTING YOUNG CHILDREN, WHICH MAY BE TERMED "SPASM OF THE GLOTTIS." By *H. Marsh*, M.D. (Dublin Hosp. Rept.)

II. CASES OF THE "PECULIAR SPECIES OF CONVULSION," DESCRIBED BY THE LATE DR. J. CLARKE, &c. By *Marshall Hall*, M.D. (Med. and Phys. Journ.)

III. CASE OF CARPO-PEDAL SPASM. (Med.-Chir. Journ.)

SINCE Dr. Clarke's observations on this peculiar disease, a great many detached cases, remarks, and conjectures have been published by various writers, especially Dr. Cheyne, Dr. Kellie, Mr. Porter, Mr. Pretty, &c.—to which list we may now add Drs. Marsh and Hall. The subject is interesting, and is still open to further investigation.

The disease in question appears to consist primarily in spasm, occurring suddenly, and affecting the muscles of the glottis. As it increases in severity, other muscles, particularly those of fingers and toes, become progressively engaged—and ultimately, if neglected or mistreated leads to severe and general convulsions. This complaint is often overlooked or mistaken; while the principles of treatment, not always correct, have received but little attention. Dr. Marsh, whose papers we shall first notice, has selected a few cases from his notes, the leading facts of which only are stated. They, however, are sufficient to elucidate the characteristic features of the disease, and the principles of treatment. He remarks that it will be prudent to contemplate the disease in its mildest form, first—and afterwards to view it in its severer aspects, and in its more complicated characters.

"Indeed, in the study of spasmodic affections, it is important to learn, first, their essntial characters, afterwards the functional derangements or diseases with which they are

observed most frequently to co-exist ; thus for instance, in the treatment of Chorea, if complicated with derangement of the digestive organs, the purgative treatment recommended by Dr. Hamilton will often be effectual ; but, if there be no such complication, as observation often proves to be the fact, this mode of treatment becomes worse than useless ; it really adds to the disease which it is intended to relieve, and augments the convulsive movements of the muscles ; hence it happens that many cases of Chorea which have resisted empirical courses of purgative medicines, have yielded speedily to local applications over the origin of the nerves which supply the muscles affected, combined with a decidedly tonic treatment. The spasmodic affection, now under consideration, requires to be studied in the same manner. It stands sometimes alone, no discoverable source of irritation, no other perceptible disease co-existing with it ; more frequently, however, it is complicated with painful dentition, with derangement of the digestive functions, with a cachectic state of the system induced by an impure atmosphere, with fever, and occasionally with effusion into the ventricles of the brain ; the consideration of these various complications bears most importantly upon the treatment." 602.

Case 1. This was a child eleven months old, very healthy, and well thriven, who had been for some time afflicted in the following manner.

"It had been observed, now and again, to awake suddenly from sleep in a state of alarm and agitation, to struggle for breath, and, after repeated efforts, to recover from the paroxysm, with a long and sonorous inspiration ; the convulsive effort was described to be severe, the face to become swollen and purplish : these attacks occurred, at first, only on awaking from sleep, afterwards more frequently ; sometimes without any perceptible cause, at other times, and more frequently, when she was vexed or was about to cry. On examining the child accurately, I could discover no deviation from a state of perfect health ; the pulse and respiration were natural, skin cool and soft, tongue clean, the breath pure, the appetite good, the bowels regular ; the alvine excretions exhibited the appearances usual in healthy children on the breast. She was playful and lively, but was startled unusually by any sudden noise ; the four incisor teeth had appeared ; the gums were neither swollen nor tender." 603.

The treatment consisted in half a grain of sulph. quininæ every six hours, with free exposure to the cool air. By these means the attacks became less frequent, and, after some days, ceased altogether. She continued in good health.

Case 2. Two other cases have fallen under our author's observation, in which the disease was confined to an occasional spasmodic affection of the glottis—no other perceptible derangement of function coexisting with it, nor any dental irritation. In these cases, also, the disease subsided under a mild tonic plan.

3. "A patient whom I had been attending, happened to mention to me incidentally, that her child, about fourteen months old, was in the habit of awaking suddenly from sleep as if alarmed, breathed with difficulty, and made a loud noise like that in a fit of the hooping-cough ; she said also, that this occurred occasionally during the day, when the child was cross ; she spoke of this lightly, as of an unimportant thing. I requested to see the child ; it looked pale and unhealthy ; the integuments were soft and flabby ; the tongue coated ; the bowels relaxed or confined ; the stools green and curdy ; the child was irritable and

nervous, and seemed to suffer from dentition; the extremities were slightly swollen, and the thumbs placed firmly across the palms of the hands. I stated that I thought the child very ill, and that probably convulsions would take place.

Next day I was summoned in haste, and found the child just recovered from a severe paroxysm of general convulsions.

The gums over the projecting teeth were divided; leeches were applied to the temples, cold lotions to the head, and warm fomentations to the extremities; aperient medicines were given; the nurse, whose milk obviously disagreed with the child, was changed; and it was removed from the city to a healthy situation in the country; after one other attack of convulsions, recovery was speedy and complete.

In this case the disease was complicated with derangement of the digestive functions, and also with painful dentition; the convulsive paroxysms, at first partial, increased in severity, and at length became general. The remedies which appeared to be ultimately and permanently efficacious, were, change of air and change of nurse." 605.

4. A fine child, twelve months old, had been subject, for four months, to frequent attacks of what was called "croupy breathing," occurring at first, only in the night, and that rarely—afterwards occasionally in the day. Medical advice was called in, and the treatment consisted of bleeding, emetics, mercurial purgatives, confinement to a heated apartment, flannels, &c.

"When first I saw the child, the struggle in breathing was difficult and protracted, and the face, during the paroxysm, became quite livid: these attacks, which usually terminated with a loud and sonorous inspiration, were excited by very slight causes, such as sudden noises, the removal of the child from the nurse's arms, or any source of irritation or annoyance; and now, instead of going off as formerly, they were, once or twice in the twenty-four hours, terminated by severe and general convulsions, which had all the characters and appearance of an epileptic paroxysm: after one of those, strabismus remained;* there was also a swollen and puffy state of the extremities, with a spastic rigidity of the fingers and toes; the digestive functions were greatly deranged, and the child looked exceedingly ill: it had been weaned for nearly three weeks; a healthy wet-nurse was procured; the gums, rather as a measure of precaution than from necessity, were divided; the temperature of the apartment was lowered, and gradual habituation to the open air adopted; the quantity of clothing with which the child was oppressed, was by degrees diminished, and after a little time, the body was sponged daily with vinegar and water: the child had already been so frequently and copiously bled, that further bleeding was not deemed advisable. Its health improved rapidly, and, restricted in nutriment to the nurse's milk, the bowels soon returned to their natural state; the general convulsions ceased altogether, and the attacks of spasmodic dyspnœa became daily less frequent and severe. As a proof of the completeness of recovery, it may be mentioned, that a few weeks having elapsed, this child was extensively scalded, and yet no convulsive or spasmodic symptom ensued. The child, moderately covered, almost lived in the open air, and during the whole process of dentition, a succession of fresh wet-nurses was provided. He is now, after the lapse of some years, a fine and healthy boy. In this case, the change of nurse, and the substitution of the tonic for the heating regimen, were attended with results at once speedy and satisfactory." 607.

4. A weak and delicate child, two years of age, had been subject, for

* "On the recovery of the child, this symptom gradually disappeared."

some time, to occasional and sudden attacks of dyspnœa, during which the inspirations were short and frequent—the head thrown back—and a sense of suffocation urgent. These attacks, which were frequent and severe, ended in a loud whoop or crow. Between these there were sometimes intervals of several days, when the child appeared tolerably well, but irritable. The paroxysms became more frequent, and excited apprehension.

"On my first visit the child was confined to bed, and laboured under well marked symptoms of remitting fever; the pulse and respiration were accelerated, skin hot, tongue coated and florid at the edges, the papillæ red and prominent, thirst, and the desire of cold drink urgent, the fæces thin and fetid; there was continual picking at the nose, and the diurnal exacerbations of fever were well marked; the veins of the head appeared unusually turgid; there were frequent attacks of spasmodic dyspnœa, such as has already been described; there was spastic contraction of the flexor muscles of the fingers and toes; the extremities were swollen, and of a slightly livid colour; this child suffered greatly from dentition, the teeth were unusually large, and were protruded at a very late period: on dividing the projecting and vascular gum of one of the molar teeth, some purulent matter was discharged. This child had had congenital cataracts, at the age of three months both eyes had been operated on; severe ophthalmia ensued: he had been copiously bled, and calomel had been given very largely; the child scarcely survived the treatment, and remained afterwards very feeble, emaciated, and delicate. A few leeches were now directed to be applied to the temples, calomel in minute doses was given every third or fourth hour, and occasional doses of castor oil; the febrile symptoms gradually subsided, the patient recovered slowly, and for some weeks remained without any return of the spasmodic attacks. After some time the child again began to suffer from difficult and painful dentition, and the spasmodic paroxysms recurred with violence: whilst in the act of dividing the gum, the spasmodic attack came on suddenly, and so urgently, that the face became livid, and there was complete opisthotonos; this spasm lasted so long, that respiration was for a time suspended, and for a few seconds, I felt apprehensive lest the child should have died in the struggle. At length, after a long and sonorious inspiration, the spasm subsided, leaving the child in a weak and exhausted state. These formidable attacks recurred frequently, and were followed soon by general convulsions; it was now determined in consultation, that the child should be bled from the arm. The blood was allowed to flow until a perceptible effect was produced upon the system: for ten days afterwards there was not any return of convulsions or spasms: at the end of this time the paroxysms of dyspnœa, terminating sometimes in general convulsions, became again frequent. There now existed extreme emaciation, languor, complete anorexia; fingers and toes rigid; extremities purple and œdematous; nervousness; tremor; and starting at the slightest noises: under these circumstances an injection, consisting of five grains of tobacco-leaves in six ounces of water, was administered: the specific effects of tobacco, in a marked degree ensued, and it was remarkable, that for a month afterwards no convulsive symptoms reappeared. About this period, a slighter recurrence of these symptoms led to the removal of the child from the city to the country, upon which they ceased immediately, and the child improved rapidly in health and strength: recovery appeared now so complete that the child was brought back to a large, and newly-painted house in the city; when after a few hours the spasmodic attacks recurred with violence: on a second removal to the country, they ceased at once; a similar experiment was a second time tried, and with precisely similar results; and it is a curious fact, that two other children were attacked with a similar spasmodic affection in this same newly-painted house; of these, one died in a convulsion, the other, on being sent to the country, recovered: the child, whose case has just been related, had been for years free from any spasmodic affection, but remains delicate, and suffering severely from scrofulous disease." 611.

5. A child, nine months old, was brought to the "Infirmary for Children," labouring under the spasmodic disease in question, but not being informed

of this circumstance, only some common remedies were prescribed for improving the digestive functions. In a few days afterwards the author found it violently and generally affected with convulsions, which succeeded each other rapidly, and, in 24 hours, proved fatal.

"The body having been examined twenty-six hours after death, no morbid appearance was discoverable either in the abdominal or thoracic viscera; the mucous membrane of the larynx, trachea, and bronchi, exhibited a perfectly natural appearance; a very large quantity of fluid was found to have been accumulated in the ventricles of the brain; no morbid change had taken place in the brain; this was the only instance in which the disease, under my observation, had terminated in hydrocephalus." 612.

6. The following case was communicated to our author by Dr. Johnson, Professor of Midwifery to the Royal College of Surgeons in Ireland.

Dr. J. was consulted in the case of the child of the Hon. Mrs. P. who was attacked on the third day after birth, with "laryngeal spasm and crowing inspiration," which excited great apprehensions. These attacks returned at intervals, when the child was irritated, and on waking from sleep, until the third month, when they disappeared without any apparent cause. Between the 5th and 6th month, they returned, accompanied by the swellings of the feet and hands described by Dr. Kellie of Leith, and terminated in general convulsions. At this time he cut two incisors in the lower jaw. The attacks of crowing inspiration returned frequently during dentition—sometimes alone, sometimes accompanied by the rigidity of the thumbs and toes, but never with convulsions, until he was cutting the first molar teeth. On examination of the gums, the canine teeth were found making their appearance. The gums were divided—an issue inserted in the nape of the neck, and aperient medicines exhibited. But the attacks were neither diminished in frequency nor violence, until the child was removed to the country, after which he had no return of the disease.

7. The following interesting case was communicated by Mr. Newton, upon whose soundness and accuracy of observation the fullest reliance may be placed."

"A child, aged nineteen months, of a violent temper, had always been very healthy until it was about seventeen month old, when he had a mild attack of hooping cough, since which he was observed to have occasional fits of difficulty of breathing on awaking from sleep, during which his face became livid; these lasted for some time and were terminated by a long, deep-drawn inspiration, with a crowing noise; this did not excite any alarm in his friends.

On the morning of the day on which he died, he took a hearty breakfast of stirabout, and in about an hour afterwards, he vomited; he was in good spirits and apparent good health until 5 P. M., when he was put into a passion; his breathing suddenly became difficult, his face livid, and he expired in about five minutes.

Dissection seventeen hours after Death. Extremities stiff, body fat, some lividity about scrotum and posterior parts of the body.

On removing the skull-cap, a large quantity of dark-coloured fluid blood escaped; there was great turgescence of the vessels of the membranes of the brain. The

brain was healthy; on removing it, a considerable quantity of blood escaped from the spinal canal.

Mouth and throat.—Uvula, somewhat elongated, tonsils slightly enlarged. The rima glottidis was very much contracted. In the larynx, upper portion of the trachea, and in the œsophagus, numerous small portions of undigested oatmeal were observed; the mucous membrane of the air tubes presented every where a natural appearance. The lungs and right side of the heart were engorged with dark-coloured blood. The mucous membrane of the stomach, about the pylorus, was softened and eroded. The muciparous glands of the small intestines were enlarged. No other disease was observed in any part of the body. On examining the larynx on the following day, the rima glottidis was found to have recovered its natural dimensions." 616.

It is evident that, in this case, the spasmodic closure of the rima glottidis was the immediate cause of death. The turgid state of the cerebral vessels and of the lungs was probably the result of the suffocative struggle. Our author observes that "the symptoms at the commencement are thus proved to be purely spasmodic, and it is only when the disease increases in severity, and when general convulsions arise, that the brain, or its membranes become the seat of the disease." In all the cases which our author has observed of this complaint, the children were of the scrofulous diathesis, or sprung from scrofulous parents. "This," he says, "bears practically on the subject, as it enhances the value of pure air, healthy nutriment, and tonic remedies, in the treatment."

"If we take a survey of the several cases of this disease which have been stated, we learn that it varies much in degree, and that its complications are numerous. In its mildest and least complicated form, the spasmodic action is confined to the muscles of the glottis, and the treatment consists in improving the general health, and in giving tone to the nervous system. The symptoms in such cases will rarely fail to yield to some of the vegetable or mineral tonics, pure and bracing air, and a well regulated diet: in some cases, I have perceived, I think, advantage to arise from some of the antispasmodic medicines, and amongst these, none has appeared to me more beneficial than the old fashioned medicine, the Tinctura Fuliginis; but when the disease is complicated with painful dentition, derangement of the bowels, or any febrile movement in the system, the primary object of the treatment must be, to remove these accompanying ailments; until this be effected the treatment applicable to the spasmodic affection, though it may mitigate its severity, will fail to eradicate the disease. When the spasmodic symptoms extend themselves, and implicate the muscles of the extremities, the disease assumes a more formidable aspect, and soon, if not checked in its progress, paroxysms of general convulsions will establish themselves: in this stage the membranes of the brain become so frequently engaged, that the utmost vigilance on the part of the practitioner is required to prevent the occurrence of such mischief; yet it must not be lost sight of that the disease, even in its mildest form, is attended with danger: one case is recorded of sudden death during the spasmodic closure of the glottis; this occurred in a child who was otherwise in perfect health, and I have heard of several instances of the same kind. In every stage of the disease, therefore, we should be aware of and guard against the liability to sudden death; all needless sources of irritation should be avoided, and the child closely watched, and carefully held and supported during the paroxysm of dyspnœa. In irritable and passionate children the danger is increased. Dr. Johnson has stated to me, that he has seen a child, in a state of asphyxia caused by this disease, recovered from apparent death by the instantaneous application of artificial respiration." 619.

We must now endeavour to make room for a case, or rather two cases, lately published by Dr. Hall, in the Medical and Physical Journal.

8 and 9. "These cases of the 'peculiar species of convulsions,' described by the late Sir John Clarke, are quoted and sketched, rather than described, in this paper, chiefly for the sake of the opportunity thus afforded me of presenting a few cursory remarks on this interesting morbid affection of infants. The two little patients were twin brothers, aged nearly nine months. They became affected, nearly simultaneously, by restlessness during the night, and with a hooping or crowing noise in the breathing, three weeks before any symptom occurred which gave alarm.

On the 27th of February, 1824, Master F. L. G. was observed to be indisposed, it was supposed, from cold. The medical friend of the family was sent for in the evening: meantime, however, the infant had fallen asleep, and seemed composed. On the next day, at eleven, a. m., the little patient was again visited; it wes perfectly lively. All on a sudden it gave a slight hoop. The gums were promptly lanced; three grains of the hydrargyri submurias were prescribed to be administered immediately, and to be repeated in four hours. In the evening it was found that the bowels had been moved freely three or four times, and that no hooping or crowing noise had taken place during the day. It was reported, indeed, that the little patient was quite well. On examining the hand, however, it was found that the thumb was firmly drawn to the palm. In a short time, too, the crowing returned, and it gradually increased. The gums were again freely lanced, and leeches were applied to the throat, which bled sufficiently to induce a little faintness; the hydrargyri submurias was prescribed in the dose of two grains every two hours, and enemata were administered. About two o'clock in the morning, the little patient was attacked by a violent fit of convulsion. He was put into a warm bath immediately, and cold water was dashed into the face until he was restored. I saw this little boy at four o'clock, a. m. There was no return of convulsion until the 2d of March. At eleven o'clock on that day a fit took place, which much exceeded the former one in duration and violence. No return of fit took place until the 5th of March, on which day he had the last. At this time two incisores appeared in the under jaw. The little patient seemed to be better; but the bowels were still torpid.

Each fit was preceded by the crowing noise; but this frequently existed without being followed by a fit. The crowing was attended by a spasmodic action of the muscles situated at the upper part of the throat, and by a difficulty of inspiration. Throughout there were a clenched state of the hands and a contraction of the feet and legs. Sometimes there was difficulty in swallowing, at others not. The bladder was not freely evacuated, except by the aid of emollient clysters.

For a few days before March the 18th this little boy appeared somewhat better. The bowels had acted, and the motions were tinged with bile. The contraction of the hands and feet was relieved. On the 19th, he became restless and tossed his head from side to side. He was relieved by a free evacuation of the bowels. On the 20th, this little boy was obviously very uncomfortable, and there was again a difficulty in swallowing. The 21st was passed comfortably, and he appeared better. The legs were observed to be a little swollen. He passed a good night, was cheerful when he awoke on the morning of the 22d, but died suddenly two hours afterwards, whilst the nurse was giving him a little tea.

On examination post mortem, the general surface of the body was found pale. In the upper jaw there were four teeth (incisores), which pierced the alveolar processes, but were still covered by the periosteum and gums; or at least a probe pushed along the teeth under the membrane was arrested at their edge, though this might be by cicatrix, as the teeth had been many times very completely lanced. There were no teeth appearing on removing

the soft parts of the under jaw, except the two which had been cut during life. The scalpel, in all other parts of the jaw, passed down to the bone. On raising the dura mater, the tunica arachnoidea was seen extremely distended by subjacent transparent fluid, and interspersed with large arteries and veins, which were very distinguishable by the colour of the contained blood. The tunica arachnoidea was perfectly transparent; on cutting through it, and applying a sponge to remove the subjacent fluid, four drachms by weight were collected. On cutting into the substance of the brain, more red points appeared than usual, and altogether perhaps more fluid exuded. The ventricles contained much serum; at the least an ounce and a half. There were no other morbid appearances in the encephalon; no tumour either in the dura mater or substance of the brain; no abscess. On tracing the spinal marrow three or four inches down, no fluid or other morbid appearance was observed. On making an incision into the thorax, all the viscera were found perfectly healthy, except the pericardium, which contained much more fluid than natural, at least two drachms by weight. The heart was completely empty. The lungs and cavities of the pleura were free from morbid appearances. There was certainly more redness than natural, and that from enlarged vessels, of the pharynx, epiglottis, and rima glottidis; very marked when compared with the adjacent parts; none, however, of the trachea and œsophagus. The viscera and cavity of the abdomen were perfectly healthy, except that the latter contained a very small portion of effused serum."

The other twin was more fortunate, and escaped, though under similar treatment. Dr. H. avers that the disease, in both instances, was precisely similar. We shall introduce the Doctor's remarks in his own words.

"*Remarks.*—I now proceed to make a few reflections upon this singular simultaneous concurrence of fits in twin brothers. I would, in the first place, observe, that the cause of this affection must have been one that was common to the two infants. It might be, 1st, the diet; 2d, the local situation; or 3d, teething The first causes had, however, obtained, without change, for months previously to the attack; it could scarcely, therefore, be any one of these which should operate so decidedly upon two infants at the same time in so peculiar a manner. The common cause, the operation of which began at the period of the attack, was teething. To this cause, then, the attack was chiefly referred in the first instance. The conjecture was subsequently confirmed by the prompt appearance of the two incisores in the lower jaw of each infant, and by appearances of dentition on the post-mortem examination of the one in whom the disease proved fatal.

I think it important to bear in mind that dentition may be a source of irritation, long before there is any tumour of the gum perceptible to the finger. When the gum begins to be irritated, and stretched by the advancing teeth, the injury may be propagated along the nerve to the brain.

It is also important to remark, that, even after full relief given to the gum by lancing, the injury may continue. Tetanus from a wound does not necessarily cease even after amputation: we have the effect to treat.

It is important to observe, in the next place, that one single fit induces a state of the brain which disposes to a recurrence of the fit. The nervous system does not at once recover from its state of irritation; it remains more susceptible than before.

It is, further, the effect of every kind of fit to induce a gorged state of the bloodvessels of the brain, similar to that observed in the countenance; this condition augments the susceptibility of the brain to further attacks of fits, and may lead to effusion. Even fits of hooping-cough have this effect, and thus frequently lead to fits of other kinds, and to hydrocephalus. I have more than once known a fit of hooping-cough become a fit of convulsion.

Convulsions are, indeed, a multiform affection. The usual form is one which attacks the muscles of ordinary voluntary motion. The species of convulsion described by Dr J. Clarke, is only remarkable from involving a part of the respiratory system of muscles, especially those about the larynx, and those of inspiration in general. Its best designation would be the *croup-like convulsion*. Another form is that described by the late Dr. Kellie, of Leith, as affecting the hands and feet. I have seen convulsive motions almost confined to the eye, or to some part of the face; but I never thought it worth while to give them a distinct name or epithet.

It is also necessary to keep in view, that there are other sources of convulsion besides irritation. Teething, and a deranged condition of the alimentary canal, are certainly by far the most usual causes of convulsion." 528.

We have seen several cases of this complaint, but never one that proved fatal. The following was put on record, fourteen years ago, in the third volume of the Medico-Chirurgical Journal and Review (monthly series) page 448. It elucidates the treatment which we have always pursued, and hitherto with success.

10. "The patient was a delicate female child, nineteen months old, and cutting three or four teeth at the time. She had been ill eight days before the Reporter saw her; but according to the mother's account, there was little or no variation in the symptoms all the time. When first seen, the child three or four times in the hour was seized with spasmodic affections of the respiratory muscles, consisting of repeated attempts to fill the chest, during which she threw herself back, as in opisthotonos, and appeared as though she would be suffocated. These fits would last ten or twelve minutes, after which the child was somewhat easier, but always fretful and peevish. The backs of the hands and insteps were swollen and hard. The thumbs were rigidly contracted, and locked across the palms of the hands. The toes were bent down towards the soles of the feet, and both wrists and ankles were rigidly bent by the flexor muscles, and kept permanently so. The little patient could take no food: she was slightly feverish; the bowels torpid; and the stools clayey, slimy, and offensive. The eyes looked very heavy and inanimate; the child extremely irritable and restless both by day and by night.

For reasons unnecessary to mention, no very active means were employed for some days, during which the child got worse, and was evidently declining fast. Hydrencephalus or eclampsia being now dreaded, leeches were applied to the temples; calomel and antimonial powder were exhibited thrice a day, and the warm bath was employed in the evening. After the bath and bleeding, the spasms went off for twelve hours entirely, and the child took some food. They returned, however, but not so evidently as before, and the convulsive respiration was much relieved. The calomel and antimony were continued, as was the warm bath; and the gums were deeply scarified, wherever a tooth appeared to be coming. From this time the child gradually recovered, and on the 18th day the spasms had entirely disappeared."

Considering that the head is the organ which, if not the original seat of the disease, is the one likely to suffer in the sequel, we should still be inclined to direct our attention to that part, while we scarify the gums, and improve the state of the abdominal secretions. We have considered this curious and interesting subject deserving of a short article in our review, and hope our readers will be of the same opinion.

XII.

Observations on the Structure and Diseases of the Testis. By Sir *Astley Cooper*, Bart. F. R. S. Sergeant Surgeon to the King, Consulting Surgeon to Guy's Hospital, &c. &c. &c. Longman's London. 1830.

[Third and concluding Article.]

We have already dedicated two ample, most ample, articles to the splendid and valuable work of Sir Astley Cooper, the title of which is seen above. If those articles have run to an almost unprecedented length, they have not exceeded their just dimensions by a single line. We do not pretend that Sir Astley Cooper is always right, or that his opinions are infallible; for such attributes are not of mortality. But we do affirm, and we conscientiously believe it, that practical men may rely upon the facts and the inferences contained in the work in question, and that all unprejudiced persons will acknowledge it a boon to the profession. It consists, as we have said on a former occasion, of two distinct parts; the one descriptive of the anatomy of the testis, the other of its diseases. We have considered the latter very fully, and it now only remains for us to direct our readers' attention to the former. The anatomy of the testis! Some gentlemen, fresh perchance from the lectures and the schools, may wonder what Sir Astley can say upon that. Older practitioners may smile at such a subject, and turn away with a shrug from a thing so barren in practical interest. To the former we shall have a sufficent answer bye-and-bye. To the latter we may as well say a word or two at once. Unless the healthy and natural structure of an organ be perfectly understood, its morbid alterations, organic or functional, can never be satisfactorily or scientifically investigated. Would a man send his watch to be repaired by one who knew not perfectly its nature and construction! Surely he would not. Neither can a practitioner pretend to an honourable rank in his profession, or lay a just claim to the character of a man of science, unless he be acquainted with the structure of the organ, the diseases of which he attempts to control.

The question of direct advantage, the *cui bono*, from any particular department of knowledge, is one which irresistibly presents itself to the minds of the mass of mankind. In this money-getting money-loving country, it is the catechism of the creed of the man of the world. Yet it cannot but be owned, that if every investigation were at once to be judged upon such a query, we should now be deficient in many of the most splendid, aye, and useful, of our modern improvements. We cannot forbear from quoting a passage, bearing on this subject, from the recent production of a very able and scientifical gentleman; we allude to Mr. Herschel.

"If," says Mr. Herschel, "the natural philosopher can bring himself to descend from this high but fair ground, and justify himself, his pursuits, and his pleasures in the eyes of those around him, he has only to point to the history of all science, where speculations ap-

parently the most unprofitable have almost invariably been those from which the greatest practical applications have emanated. What, for instance, could be apparently more unprofitable than the dry speculations of the ancient geometers on the properties of the conic sections, or than the dreams of Kepler, (as they would naturally appear to his contemporaries,) about the numerical harmonies of the universe? Yet these are the steps by which we have risen to a knowledge of the elliptic motions of the planets and the law of gravitation, with all its splendid theoretical consequences, and its inestimable practical results. The ridicule attached in Hooke's time to 'swing swangs' did not prevent him from reviving the proposal of the pendulum as a standard of measure, since so admirably wrought into practice by the genius and perseverance of Captain Kater; nor did that which Boyle encountered in his researches on the elasticity and pressure of the air act as any obstacle to the train of discovery which terminated in the steam-engine. The dreams of the alchymists led them on in the path of experiment, and drew attention to the wonders of chemistry, while they brought their advocates (it must be admitted) to merited contempt and ruin. But in this case it was moral dereliction which gave to ridicule a weight and power not necessarily belonging to it; but among the alchymists there were men of superior minds, who reasoned while they worked, and who, not content to grope always in the dark, and blunder on their object, sought carefully in the observed nature of their agents for guides in their pursuits; to these we owe the creation of experimental philosophy."

We think we need pursue this subject no farther. A strict investigation of anatomical facts, a rigid inquiry into the intimate structure of parts should form the basis of all medical reasoning and observation; and, although our art must be always in a degree empiric and conjectural, yet such a method of research bids fair to redeem it from some of its uncertainty.

Sir Astley Cooper is one of those men whose love of truth makes them doubt what they do not see. From his converse with the world he knows the prevalence of unconscious error, and the boldness of wilful falsehood. He doubts what he reads in books, and, for ought that we know, such doubts may be aright. Yet, *all* that is printed cannot be untrue, or the world would not be under so many obligations to Sir Astley for his own practical writings. We cannot refrain from mentioning a circumstance, although unauthorised to do so, which reflects great honour on the distinguished individual to whom we are alluding. At a time when he was reputed as enjoying the luxurious repose of an English country seat, and the healthsome amusements of the field, Sir Astley Cooper was busily employed in making the preparations upon which the anatomical descriptions of his work are founded. Those preparations are at present in Sir Astley's possession, and more splendid specimens of the art of the anatomist have never been witnessed since the days of Ruysh. With the urbanity that has always peculiarly distinguished him, Sir Astley is ever ready to display them to all who take an interest in the subject. With these few remarks we proceed to the work of analysis.

Passing over the descriptions of the vessels and nerves of the scrotum, we halt at the DARTOS. According to Sir Astley this exists only in the imagination of the anatomist. The motions of the scrotum are not muscular and sudden contractions, but vermicular and gradual; they are not voluntary; they result from changes of temperature; and seem to depend on the lessened diameters of the arteries and veins of the part, and of the diminished quantity of blood which they contain.

Cellular Tissue of the Scrotum. This is loose, long, reticular, connecting the integuments to the external covering of the spermatic cord and testis.

It is rather reticular than adipose, to prevent any increase of bulk under corpulency; long and loose, to permit great freedom of motion in the testis, and enable it to elude the influence of violence. Opposite the raphé, it becomes condensed, and is named the septum scroti, although it is permeable to air and water, allowing dropsical effusion to pass through it, and the whole reticular membrane to be distended. From the septum, reticular fibres pass to the covering of the testis, to preserve each in its situation. The septum is supplied with blood from the perineal artery, which anastomoses freely with the external pudic. When the diseased testis adheres to the septum, these vessels are greatly enlarged, and often furnish, if not secured, a troublesome hæmorrhage.

Superficial Fascia of the Cord. This fascia proceeds from the surface of the tendon of the external oblique, and the margin of the ring, envelopes the cord and descends upon the testicle, which it covers. Internally, it is attached to the cremaster muscle and its tendon—externally, it is connected by reticular fibres to the cellular tissue of the scrotum.

Cremaster Muscle. This envelopes the cord and covers the testis, but Sir Astley defers its description to another place.

Tunica Vaginalis. "This membrane, when first raised, is found to be covered entirely by the tendon of the cremaster muscle, which envelopes its outer surface, and is inserted into it; and until this be cut through, the true tunica vaginalis does not appear.

When the insertion of the cremaster muscle is cut away, the tunica vaginalis is found to be a very delicate and thin membrane, formed from the peritonæum, and descending from the abdomen before the testis. It is composed of two portions: the one loose, and detached from the testis, excepting posteriorly and laterally; the other, which adheres to the surface of the tunica albuginea, and which covered the testis whilst in the abdomen; but when examined in the scrotum, the two portions are connected, and are continuations of each other.

The first, or loose portion is the tunica vaginalis reflexa, and the adhering portion the tunica vaginalis testis: between the first and second there is a cavity, into which a vapour, or halitus, is naturally secreted, and which, when poured out in a diseased quantity, produces the complaint which is called hydrocele.

The tunica vaginalis is a reflected membrane, like the pericardium, pleura, and peritonæum. The tunica vaginalis reflexa passes loosely over the fore-part and sides of the testis; and being continued to its posterior edge, there turns over the epididymis to the surface of the testicle, covering and adhering to the tunica albuginea; and in a similar manner on the inner side, excepting on that side there is no epididymis.

The tunica vaginalis testis can be dissected from the tunica albuginea but to a short distance, as it soon becomes incorporated with the surface of that membrane.

Behind the tunica vaginalis reflexa, and the tunica vaginalis testis, the testicle is placed, contained in its tunica albuginea; and the spermatic vessels, the vas deferens, the absorbents, and the nerves of the testicle enter it posteriorly, and do not penetrate the tunica vaginalis; and the testis may be cut into behind without injury to that tunic.

In this dissection, then, the scrotum is first cut through; next the cellular tissue; thirdly, the fascia superficialis; fourthly, the cremaster muscle; fifthly, the tunica vaginalis reflexa; sixthly, the tunica vaginalis testis; and then the testis, with its covering of tunica albuginea, is exposed.

The tunica vaginalis is a serous membrane, and forms a cavity which communicates with the peritonæum and cavity of the abdomen before birth, but is usually shut after birth by adhesion, when it becomes a small thin cord, situated on the fore-part of the spermatic vessels. The fluid which it secretes, when abundant, has the colour and other properties of serum, being a solution of albumen. It is coagulable by heat, and various chemical agents. The tunic is supplied with vessels from the spermatic artery, and artery of the vas deferens, from which its halitus is secreted. Its veins open into the spermatic veins. Its absorbents pass upon the spermatic cord with those of the testis, and with them into the abdomen; and its nerves are in part derived from the spermatic plexus, and in part from a branch of the external spermatic. It possesses considerable sensibility, and irritation of it produces sickness. In the healthy state, when opened, no fluid is found in it; but a vapour arises, and it becomes dry.

When the tunica vaginalis reflexa is opened, the cavity which is situated between it and the tunica vaginalis testis, is exposed; and through the latter membrane, which is semi-transparent, the tunica albuginea testis appears. The general form of the testis and epididymis may be observed, the latter being placed upon the upper, posterior, and outer part of the testis; beside which a little vascular membranous body is also seen upon the anterior extremity of the caput epididymis." 12.

Of the testis. This is oviform, situated rather obliquely, with its largest extremity placed upwards and forwards. It has an anterior and superior, a posterior and inferior extremity; an anterior and inferior, a posterior and superior edge; and it has two lateral surfaces. Its anterior edge is most rounded, the posterior least so; the two sides are convex, although flatter than the anterior edge. At the posterior edge the spermatic vessels enter, and this part is devoid of the tunica vaginalis. The upper extremity of the testis is capped by the epididymis. The axes of the testis are three. The longest, which is two inches in a healthy formed testis, passes from the anterior and upper extremity to the posterior and lower; the second axis is one inch and a half, and passes from the posterior superior to the anterior inferior edge; the third or transverse diameter, passing from side to side, is one inch and one-eighth in length. The weight of a healthy testis and epididymis is about an ounce.

Of the Tunica Albuginea Testis. This forms a complete covering to the glandular structure of the testis, leaving a cavity in which it is contained; but at the upper and posterior part of the testis, a little to its outer side, the tunica albuginea turns in towards the centre of the testis, and forms a triangular process, which, from its situation, Sir Astley is disposed to call the mediastinum testis. This inverted portion of the tunic sends forth numerous ligamentous cords. Some pass directly from the mediastinum to the anterior edge of the testis, and form pillars, which are strongly fixed to the inner side of the tunica albuginea, to prevent the separation of its sides; others, more numerous, but smaller, descend upon the seminiferous tubes, and send forth lateral membranes, which form purses to enclose the lobes into which the glandular structure is divided: and these are met by similar ligamentous cords and membranes, from the inner surface of the tunica albuginea, to complete the envelope of the lobes of the testis.

The tunica albuginea is, therefore, not merely a simple bag to enclose the glandular structure of the testis, but it forms a process which splits into ligamentous cords; and these send forth lateral membranes, which divide

the glandular structure into lobes, in which the seminal tubes are contained. The membranes and cords not only support and connect the seminal tubes, but form beds upon which arteries, veins, absorbent vessels, and nerves are spread. They have been called septa: but in reality they envelope the seminiferous tubes, convey to them the blood, and form bags which support, confine, protect, and nourish the tubular structure of the testis.

The outer surface of the tunica albuginea is covered by the tunica vaginalis testis, which is thin, soon incorporated with its surface, and only separable from it to a small extent. As it is a serous membrane, it renders the outer part of the tunica albuginea a secreting surface. The tunica albuginea is further divisible into two layers. The outer is fibrous, tendinous, inelastic, resembling the sclerotica and external portion of the dura mater. It is little vascular; but strong and inelastic to protect the tender tubular structure of the testis from violence, which it generally does to a surprising degree. The inner coat or layer of the tunica vaginalis is called by Sir Astley the tunica vasculosa; as the spermatic artery ramifies in it. It adheres pretty firmly to the outer layer at the anterior edge of the testis, where some of the internal ligamentous cords are fixed. But it may be entirely dissected from it, so as to form a separate preparation, enclosing the tubuli, and leaving the outer layer with the spermatic cord. This vascular tunic is easily demonstrated by filling the arteries and veins with fine injection; and then cutting open the testis and removing the tubuli. The membrane is seen highly vascular on the inner part of the tunica albuginea.

The outer layer resembles the dura mater in structure, and like it, forms processes internally. The inner membrane resembles the pia mater, being reflected inwards on the lobes of the testis, forming a bed on which the branches of the spermatic artery ramify, and supplying with vessels the membranes which envelope the tubuli. The arteries which supply the tunica vasculosa pass between this coat and the proper albuginea, before they divide into minute branches, to supply the membrane which is reflected inwards. Some branches of the spermatic veins also ramify upon the surface of this membrane; but the greater number pass, upon the ligamentous cords, into the glandular substance of the interior of the testis. Upon this membrane absorbent vessels are also found.

Lobes of the testis. The tubuli seminiferi are disposed in numerous lobes, which are contained in the tunica albuginea; had they been loosely suspended in it they would have constantly been liable to derangement from concussion, or to laceration. The lobes are pyriform; their stalk, or commencement, is turned to the upper and posterior edge of the testis, their bases to the anterior and lateral parts of the tunica albuginea. They receive suspensory cords or ligaments from the mediastinum testis, which send out membranes to be spread over the lobes, and which meet others springing from the anterior edge and sides of the testis. Thus the lobes are confined and suspended by the ligaments and membranes.

Of the Tubuli Seminiferi. The cavity formed by the tunica albuginea is in great measure filled by the tubuli seminiferi, divided into two sets of lobes; first, into large lobes, enveloped in membranes and connected with the larger ligaments or pillars of the testis: and secondly, into an infinite

number of small lobes, each also contained within a membrane. The larger are formed of numerous tubuli clustered together; the smaller of a single tubulus, and sometimes of two tubuli. The larger are pyriform, their stalks attached to the rete, their bases to the inner side of the tunica albuginea; they are situated between the stronger pillars of the ligaments of the testis, as they pass from the mediastinum to the inner part of the tunica albuginea; and the vascular membranes, by which they are enveloped, pass from one ligament to the other. The smaller lobes are also disposed in vascular membranes, and supported by smaller ligaments and vessels. Each tubulus begins from one of the canals which form the rete; and, passing through a small hole in the mediastinum testis, it becomes excessively convoluted, and forms a conical or pyriform body, the basis of which is turned to the inner side of the tunica albuginea, and the convolutions are placed nearly at right angles with the long axis of the tubulus. Each tubulus may be unravelled, when it is found to be composed of a long, single, and convoluted vessel, the convolutions disposed nearly in parallel lines, and nearly transversely to the long axis of the lobe. With these tubuli, thrown into larger and smaller lobes, and supported by ligaments from the mediastinum, is the cavity of the tunica albuginea filled.

The following blood-vessels are distributed upon the lobes. The *spermatic artery* passes in two large branches on the opposite side of the testis to the epididymis; and, between the outer and inner layer of the tunica albuginea, they are continued upon the inner coat towards the anterior and inferior edge of the testis. They there form an arch of communication, from which vessels pass upwards and backwards upon the membranes which cover the lobes of the tubuli. When they have reached two-thirds of the way to the mediastinum, they divide into two branches, which turn back on each side towards the anterior edge, and supply the membrane abundantly with vessels. The smaller lobes receive a little vessel at each extremity. The principal branches of the *spermatic veins* are arranged in a different manner. A few pass on each side on the surface of the lobes, but the greater number descend on the mediastinum, and are continued on the ligaments of the testis, between the larger lobes, to the anterior edge, when they become inverted, to be distributed upon the extremities of the larger lobes; they also meet some small veins which pass in at the anterior edge, and are distributed upon the extremities of the lobes.

Of the Rete. By this is meant a set of canals which receive the serum from the tubuli; not placed, like them, in the cavity of the tunica albuginea, but situated between its layers, in what Sir Astley has called the mediastinum. This is placed at the posterior edge of the testis, exactly opposite to the epididymis.

"To dissect this structure clearly and distinctly, first make a transverse section of the testis, and then, looking at its divided edge, it will be seen that the tunica albuginea is at that part readily divisible into three layers. The first layer turns upon the spermatic cord, uniting with the sheath which covers its vessels. The second layer unites with a similar layer on the opposite side, and forms a thick substance, between the fibres of which, interstices are left for blood-vessels and absorbents; whilst the internal layer, uniting with that on the opposite side, as well as with the preceding layer of the tunica albuginea,

forms the present process which I have called mediastinum, which projects into the testis between the tubuli; and it is in this substance that the seminal canals of the rete are placed. The mediastinum, is therefore composed of two bodies—the upper placed towards the spermatic cord, the lower towards the centre of the testis:—in the upper are situated blood-vessels; in the lower, the canals of the rete; and from the lower proceed the pillars which are stretched to the inner side of the tunica albuginea, to bind its sides together, and smaller ligaments are also sent to the lobes of the tubuli, to envelope and support them." 20.

If an incision be made in the long axis of the testis from one end to the other, the mediastinum is seen projecting downwards and forwards amidst the tubuli, reaching more than three-fourths of the length of the testis, and its edge terminating in its ligaments. In the whole length of the mediastinum the canals of the rete are passing. In a transverse section of the mediastinum, these canals are very visible to the naked eye: passing in a longitudinal and waved direction from the posterior to the anterior part of the mediastinum, and situated in it more to the anterior and lower than to the posterior edge of the testis. Hence the mediastinum is composed of two parts: the back part of blood vessels, the anterior of the rete. In these canals the tubuli terminate by single vessels, which pass through small apertures between the ligaments of the mediastinum, and they enter the anterior edge, as well as the sides and extremities of the rete; but they do not enter the posterior edge of the mediastinum. The rete terminates at the upper and posterior extremity of the testis, by forming the vasa efferentia. The mediastinum descends towards the centre of the testis, and the central tubuli there enter it, whilst the others pass into its sides. The back part of the mediastinum has a very convoluted artery, passing from one extremity to the other. The veins also ramify upon the back of the mediastinum, and send vessels through it, which pass between the ligaments and lobes of the tubuli.

"Having traced the canals of the rete, and found that they were situated in, and completely enclosed in the tunica albuginea, it struck me that I might inject these tubes with glue, or even coarse injection by passing a fine silver or steel pipe into the canals of the rete; and having made trial of this plan, I have injected the tubuli seminiferi with coloured fine injection, and the vasa efferentia were also readily filled, and have been thus able to make some beautiful preparations, more easily dissected, and much less easily spoiled, than those which are made by injecting the tubes with quicksilver. The rete can even be filled with coarse injection; and the beginnings of the tubuli and the vasa efferentia will receive the injection. If the injecting pipe be placed in the back of the mediastinum, the injection readily escapes into the absorbent vessels, and those of the spermatic cord become filled." 22.

Of the Vasa Efferentia. The tubuli and the rete, already described, compose the body of the testis. The seminal vessels next in order are the vasa efferentia. These canals are placed between the testis and epididymis, and form the medium of communication between them. The greatest number which Sir A. has seen is fifteen, and from thirteen to fifteen exist in a healthy testis. But they are often found obliterated and reduced by disease to the number of six or seven, which does not prevent the organ from continuing to perform its functions, or hinder the conveyance of the semen through the remaining channels into the epididymis. The vasa efferentia arise singly

from the anterior and upper extremity of the rete, and they terminate in the different parts of the epididymis, so as to leave it a single tube. Prior to their termination, they each form a conical body, in which the seminal tube is divided with extreme minuteness. A small band of communication is continued along the surface of the vasa efferentia, to receive the termination of those vessels. Between the vasa efferentia and the lobes which they form, there are strong ligamentous cords, strengthening the connexion between the testis and epididymis; and the tunica vaginalis reflected over them is denser than in other parts. The vasa efferentia have the general form and character of the tubuli testis, save that their direction is reversed. They begin from the rete in single vessels, a little convoluted, and then by their excessive convolutions, they are formed into conical bodies; they differ from the tubuli in sending forth a vessel to the epididymis, instead of terminating in a blind extremity. The first vas efferens has the readiest communication with the epididymis, the second a smaller, and so on, although all ultimately communicate with it.

OF THE EPIDIDYMIS.

This may be considered as an appendix to the testis. It is of crescentic form; its upper edge rounded; its lower edge thin. Its anterior and upper extremity is called its caput, the middle part its body, and the lower part its cauda. The caput and cauda have been called globus major and minor, but there is no enlargement entitled to the name of the latter. The epididymis is covered by the tunica vaginalis reflexa. The tunica vaginalis testis passes from the side of the latter directly over the caput and cauda of the epididymis; but in the centre it passes under the body of the epididymis to the spermatic cord; then turns, and lines the inner side of the epididymis, and rises over its sharp edge, to cover the upper part of its body, being continued to form the tunica vaginalis reflexa. It covers the cauda superficially; it closely invests the caput; and thus each extremity of the epididymis is confined to the testis, whilst, at its centre there is a hollow between the two, into which the point of finger may be passed, and which is lined by the tunica vaginalis. When the tunica vaginalis is raised from the epididymis, numerous cords and branches of blood-vessels may be observed passing into it from the posterior to the anterior extremity, dividing it into lobes. These cords are the insertions of the cremaster muscles into the epididymis, and they also form bands, which prevent the convolutions of the tubes from being displaced.

Of the Caput Epididymis, or Globus Major. This is principally formed of the lobes of the vasa efferentia, sometimes named coni vasculosi, which are not situated in a single line, but some are placed behind others; so that the end of the epididymis is curved and double. Between these lobes are tendinous cords, which separate and support them; and on the upper part of the vasa efferentia a band of epididymis passes, which receives a vessel from each lobe of the vasa efferentia.

Of the Cauda Epididymis. Its cauda terminates in the vas deferens, the tube of which is larger and less convoluted than that of the epididymis,

which is their chief distinction. In injecting the testicle, the quicksilver passes with difficulty from the vas deferens into the epididymis, from the sudden turn the tube here makes, and from its being bound down by cords proceeding from the cremaster.

Of the Body of the Epididymis. This is entirely composed of the convolutions of a single seminal tube, thrown into lobes, which convolutions pass in parallel lines from edge to edge. That it is a single tube, is shewn by its admitting of being entirely unravelled after maceration. It is subject to some varieties. Sir Astley has seen it naturally unravelled in its centre, to the extent of three quarters of an inch; and, secondly, it very frequently sends forth an additional vas deferens, from one to three inches in length, along the spermatic cord. Sir A. has a preparation of three of these in the same testicle, each terminating in a blind extremity. The arteries and veins have been already described; the absorbents of the epididymis pass into those of the spermatic cord, about an inch from the convex edge of the crescent.

Of the Vas Deferens.

This begins from the cauda epididymis, and terminates in the duct of the vesicula seminalis, the combined vessels opening at the veru montanum in the prostatic part of the urethra. At its beginning from the epididymis it is doubled upon that body, and bound down by the tendinous fibres and insertions of the cremaster; it is here very much convoluted, though less so than the epididymis, and it does not form any distinct lobes. It descends below the cauda of the epididymis, at its commencement, and for the first inch its convolutions are numerous; in the second inch of its ascent, they become less in number; and in the third inch, from its beginning, in a great degree disappear. Its course we need scarcely describe. The vas deferens is enclosed in a sheath, formed by the tendinous fibres of the cremaster, and is supported by ligaments of its own which descend from the internal ring; the sheath may be readily found in the first three inches of the tube from the epididymis. The ligaments strengthen the connexion of the testis to the body and support it, and they preserve the convolutions of the vas deferens, for which its two lateral bands are particularly designed. It is situated posteriorly in the cord, there being a space of a quarter to half an inch between it and the spermatic artery and vein. Its roundness and hardness distinguish it. It is muscular in the bull, and its fibres take a circular direction. Between the vesiculæ, these vessels become enlarged, and their internal surfaces cellular, secreting a fluid which mixes with the semen. The structure of the vas deferens, near its termination, bears a strong resemblance to that of the vesiculæ seminales.

Of the Spermatic Cord.

The parts composing it are situated in the abdomen, the inguinal canal, and between the abdominal ring and testicle. It consists of three arteries, with their corresponding veins, of the vas deferens, of absorbents, and of nerves covered by fascia, and by the cremaster muscle.

Of the Parts in the Abdomen. Without particularizing the origin and course of the spermatic arteries, we may remark that, after they emerge from the inguinal canal, they appear in the spermatic cord, surrounded and enveloped by the spermatic veins. When the artery reaches from one to three inches from the epididymis, it divides into two branches, which descend to the testicle on its inner side, opposite to that on which the epididymis is placed. One passes to the anterior and upper—the other to the posterior and lower part of the testis. From the former the vessels of the epididymis arise ; one passing to its caput, another to its body, and a third to its cauda and the first convolutions of the vas deferens, communicating freely with the artery of the vas deferens. The spermatic artery then enters the testis, by penetrating the outer layer of the tunica albuginea ; then, dividing upon its vascular layer, its branches form an arch by their junction at the lower part of the testis, from which numerous vessels pass upwards, and again descending, supply the lobes of the tubuli seminiferi. Besides this lower arch, there is another, passing in the direction of the rete, extremely convoluted in its course, and forming an anastomosis between the principal branches.

Of the Spermatic Veins. We may pass over the peculiarities of their abdominal distribution, as they are familiar. Two or three veins often accompany each spermatic artery in the abdomen, and similar branches also cross upon the coats of the artery, and form several anastomoses ; but they unite into one before they terminate. In the inguinal canal, they are placed with the spermatic artery, but are divided into two, three, or more vessels, beside some small communicating branches. Below the external abdominal ring, they present the following distribution.

Three sets spring from the testis ; one from the rete and tubuli, another from the vascular layer of the tunica albuginea, and a third from the lower extremity of the vas deferens. The veins of the testis pass in three courses into the beginning of the spermatic cord ; two of these quit the back of the testis, one at its anterior and upper part, and a second at its centre, and after passing from two to three inches, these become united into one. The other column accompanies the vas deferens. There is also a large vein just above the testis, which crosses to join the three columns. The veins of the epididymis are—one from the caput, another from its body, one from its cauda, and another from its junction with the vas deferens, besides some small branches ; they terminate in the veins of the cord. The veins of the cord below the external ring divide into numerous branches, which are not only turned and twisted upon each other, but very frequently communicate ; so that, although they have valves, they may be injected contrary to the course of the blood, by the injection traversing from one to the other. These vessels have been absurdly called the vasa pampiniformia.

The length and size of the spermatic arteries and veins, and their numerous convolutions, seem to render it obvious that Nature has designed the circulation to be slow, the secretion elaborate, and that she has defended the tender structure of the testis from the danger of an impetuous current. The number and size of the spermatic veins, when compared to their arteries, are calculated to secure the same end.

There is a second artery in the cord, which begins from the vesical arte-

ries, near the remains of the umbilical. This deferential artery divides into two sets of branches: one descending to the vesicula seminalis and to the termination of the vas deferens; the other ascending upon the vas deferens, runs in a serpentine direction upon its coat, passes through the whole length of the spermatic cord, and when it reaches the cauda epididymis divides into two sets of branches—one advancing and uniting with the spermatic artery to supply the testicle and epididymis—the other passing backwards to the tunica vaginalis and cremaster.

Absorbent Vessels of the Testicle.

These arise both from the coats of the testis and from its internal structure. They unite upon the cord, and form three or four trunks, which ascend on the spermatic veins, pass through the inguinal canal, and diminish in number but increase in size when they enter the cavity of the abdomen. On the right side they quit the spermatic vein to cross the vena cava, and terminate in three or four absorbent glands by the side of the aorta, near the origin of the spermatic artery. On the left side they pass into glands in contact with the aorta, just below the renal artery. The absorbents of the tunica vaginalis terminate in those of the testis.

From the description of the inguinal canal, and a very good one it is, we shall only cull one passage. The cremaster muscle is connected with the muscular fibres both of the internal oblique and the transversalis. But it is more particularly the latter to which we would direct attention. The transversalis muscle, then forms an arch over the spermatic cord, and is inserted, with the tendon of the internal oblique, into the tendinous covering of the rectus. But its lower edge has a very peculiar insertion. It begins to be fixed into Poupart's ligament, as far as the attachment of the rectus. Thus the inguinal canal is endowed with muscular contraction, which, during the action of the abdominal muscles, serves to close it, and lessen the disposition to hernia. Sometimes a portion of muscle descends from the tendon of the transversalis in the course of the linea semilunaris, to be inserted into the fascia transversalis behind the cord, and into Poupart's ligament. It is this circular insertion of the transversalis, which, according to Sir Astley, is the cause of stricture in inguinal hernia, in the course of the canal and nearly at the upper ring. This will be new to most anatomists; of its correctness we have satisfied ourselves by several dissections.

Of the Cord below the External Ring.

The account of the anatomy of the spermatic cord in this situation is too valuable to be passed unnoticed. It is loosely covered by a superficial fascia, continuous with that of the abdomen and of the scrotum, but adhering strongly to the edges of the external ring. Of this we need say no more. The second covering of the cord is the cremaster muscle. It arises from Poupart's ligament in the inguinal canal, between the internal oblique and the transversalis, blending there with some of the fibres of those muscles; below the origin of the fibres of the internal oblique, it arises from

Poupart's ligament nearly to the external ring; behind the spermatic cord it receives muscular fibres from the transversalis; it is also attached, on the inner side of the abdominal ring, to the lower part of the sheath of the rectus muscle. From these attachments it descends upon the cord in loops. It envelopes the vessels and nerves of the cord in its descent, and forms numerous tendons, which resemble in their first appearance nervous filaments. It has the following insertions:—first, it forms a tendinous sling, which envelopes the lower part of the tunica vaginalis; secondly, it sends tendinous fibres into the inferior part of the testis and epididymis, and into the tunica vaginalis; and thirdly, it blends with some cords which surround and enclose the lower part of the vas deferens, and which may be traced to the upper orifice of the inguinal canal, and which pass down with the spermatic vessels.

The cremaster has an artery to supply it, which is the third artery of the cord. This CREMASTERIC artery arises from the epigastric, near the internal opening of the inguinal canal; passes inwards towards the lower part of the rectus and pyriformis muscles, nearly in the line of Poupart's ligament internally, and then divides into two branches:—the first passes to the rectus and pyriformis muscles; the second descends upon the back part of the cord to the cremaster, to which it gives vessels in its course. The vein accompanying this artery terminates in the epigastric vein, and a branch of a nerve attends them. The use of the cremaster is to draw up the testis *in coitu*, pressing it against the pubes and abdominal ring, and thus aiding the passage of the semen as it is secreted. When examined in a full-grown fœtus, it appears that the testis has been drawn down into it, as into a purse; and if the testis has not long descended, and its adhesions to it are slight, it can be easily drawn from the cord and testis, excepting at its lower part, where it firmly adheres to the tunica vaginalis reflexa, and to the remains of the gubernaculum, the epididymis, testis, and vas deferens.

OF THE DESCENT OF THE TESTIS.

The testis in the first seven to eight months of fœtal life are found situated on the loins. It is only in the earliest months that they are placed immediately below the kidneys; in a fœtus of five to six months they are seated on the lower part of the psoæ muscles. Like the other abdominal viscera the testis is covered by peritoneum on its fore part and sides; this forms the tunica vaginalis testis of the adult. From the lower end of the testis and epididymis the gubernaculum proceeds, behind the peritoneum, but covered by it on its fore part and sides. It is composed of several strong ligamentous fibres, which proceed through the inguinal canal to the cellular membrane of the scrotum in which it is lost. The peritoneum of the lower part of the abdomen passes down upon, and adheres to the gubernaculum, so as to form a small pouch in the inguinal canal, to which the cremaster is attached. The vas deferens descends behind the peritoneum, from the lower end of the epididymis, passing posteriorly to the gubernaculum over the psoas muscle and iliac vessels to the duct of the vesicula seminalis behind the bladder, which are so little buried in the pelvis that the latter can be brought into view without dissection. The cremaster, as far as Sir Astley can distinguish it in the fœtus, passes upon the gubernaculum to the testis

and epididymis, and is attached to the process of peritoneum which descends with the testis as a pouch, to the lower part of the inguinal canal; and the testis descends into this muscle as into a purse, as it is directed down by the gubernaculum, whence the loops which it forms.

"If any one will be at the trouble to examine a fœtus at the eighth or ninth month, soon after the testis has descended, he will find that the cremaster may be readily turned from the spermatic vessels and vas deferens, so as to leave them free from it; and it can be separated from the epididymis and testis, excepting at the lower extremity of each of those bodies, and at the lower end of the vas deferens, into which it is inserted, so that it forms a purse to the testis and cord, after their descent.

In animals, in whom the testis remains in the abdomen, the cremaster still exists. I do not believe that it is the cause of the descent of the testis, nor that it is designed as a suspendor, but as a compressor of the testis.

I will merely put it as a query—if the descent of the testis may not be assisted by the pressure of the fluid, provided in the abdomen of the fœtus to allow of the growth of parts, upon the pouch of the peritoneum, which adheres to the gubernaculum, and which assists in forming the tunica vaginalis reflexa?" 43.

If the testis has not descended at birth, it is often afterwards forced down by a congenital hydrocele or hernia. The descent of the testis begins at the very earliest period of its formation, and it usually reaches the scrotum about the eighth month, though it varies greatly in point of time. The peritoneum attached to the gubernaculum, and the loose peritoneum lining the lower part of the abdomen, descend with the testis between the eighth and ninth months; for the testis is not drawn into the pouch, but the testis, pouch, and loose peritoneum of the lower part of the abdomen descend together. The peritoneum attached to the gubernaculum becomes the tunica vaginalis reflexa of the adult; the portion covering the testis in the abdomen is the tunica vaginalis testis in man; and that which it draws after it from the abdomen to the testis is the tunica vaginalis of the cord. Very soon after the descent of the testes the peritoneum becomes closed by the process of adhesion, first towards the abdomen, then gradually lower down; the exact time of its being shut is uncertain. At the ninth month Sir Astley has often found both open; or one open, and the other closed. The peritoneum becomes shut from the abdomen nearly to the testis.

The time at which the testis descends varies greatly in different persons. It usually reaches the scrotum before the birth of the infant; but frequently one is placed in the scrotum, and the other remains in the abdomen, or in the inguinal canal, just above the external ring, or sometimes it just emerges from the ring. In these situations it is exposed to injury and violence; and if it remain, it is rather prone to disease of a malignant character. Sir Astley has often seen the testicle descending between the age of thirteen and seventeen, probably from some new excitement about that period; the descent is, in some cases, not accomplished till the age of twenty-one. When the testis remains in the abdomen the mind of the patient is affected with the suspicion that his virility is lessened or destroyed; one such individual committed suicide. In this case, and in others which Sir A. has examined, the testis was nearly of the same size as a healthy testis deprived of its tunica vaginalis, and the seminiferous tubes were full of semen.

It often happens that when the testis remains in the inguinal canal, there

are severe spasms of the cremaster, or muscles of that canal, accompanied with violent pain, and only relieved by the hot-bath and fomentation. The tunica vaginalis is generally closed at birth, but it often is open on one side, sometimes on both. If the opening be so small as only to admit serum, a congenital hydrocele is produced. A truss applied in infancy cures this disease; the water being absorbed when the tunica vaginalis is closed.

The opening in the tunica vaginalis is sometimes partially closed, and produces hydrocele of the spermatic cord; this, however, is also the result of cerous cysts forming in the cord, more especially just above the testis. The opening in the tunica vaginalis sometimes remains small until the adult age, and then it becomes suddenly dilated by the protrusion of intestine, forming a hernia congenita; and when the surgeon in the operation discovers its nature, the patient assures him he never had hernia until a few days before. This Sir A. has known occur several times. More frequently the tunica vaginalis, when unclosed, admits protrusion of the intestine in childhood, in contact with the testis, constituting hernia congenita. When the testicle has not descended at birth it often happens that a hernia becomes the means of its descent; and such hernia should remain without a truss being applied, until it has brought down the testis into the scrotum. A testis late in its descent and protruded by hernia is often lessened in its bulk; but the testis on the other side, with this diminished organ, is sufficient for the procreation of children. The tunica vaginalis is sometimes closed by a film of adhesion; which, becoming elongated by intestinal protrusion, forms a sac, in the mouth of which the intestine has been strangulated; and the patient dies, if unrelieved by an operation.

OF THE NERVES OF THE TESTIS, AND CORD, AND PARTS ADJACENT.

Three sets of nerves supply the testis and neighbouring parts; the first are those in the vicinity of the external ring; the second, the external spermatic nerves distributed to the cord; and the third, the spermatic plexus, derived from the grand sympathetic. We may cursorily mention that the first is derived from a muscular branch, which winds round the crest of the ilium, and may be traced back to the first and second lumbar nerves—that the second, or external spermatic nerve, is derived from the second lumbar nerve, and pierces the psoas muscle—and thirdly, that the spermatic or ganglionic plexus may be considered as consisting of two portions, the first descending, along with the spermatic vessels, from branches of the superior mesenteric, renal, and aortic plexus, the second being derived from the hypogastric plexus.

If the peritoneum at the internal ring be examined, it will be found firmly united by tendinous cords to the facia transversalis. These cords descending with the vas deferens form a sheath to it, and, passing from one convolution to the other, preserve it in its convoluted state; they terminate in being fixed in the cauda epididymis, and lower extremity of the testis, blending there with the cremaster. In the same manner cords pass down with the spermatic artery, and form a sheath, by which it is enveloped, to preserve its convolutions. To discover these cords, it is only necessary to dissect closely on the coats of the vas deferens and spermatic artery, especially below the external ring.

The testis in youth is capable of being injected. At two years the vas deferens, epididymis, vasa efferentia, and rete exist; but the tubuli are imperfect, or are too small to receive injection. In advanced age the testis becomes reduced and relaxed, from the diminished size of the seminiferous tubes, and from the smaller quantity of fluid which they contain. It is common, in advanced age, to find the caput epididymis diseased; several of the lobes of the vasa efferentia being converted into a yellowish-brown solid structure. In age the seminiferous tubes become small; they appear yellow instead of red, from their having less arterial blood; and it often happens that a considerable number of them become cords instead of tubes, assuming a ligamentous appearance. A varicose state of the left testis is frequent in age.

The testis does not in general become absorbed, if it be partially diseased, although its functions may be interrupted even to complete obstruction of semen. In 1823 Sir Astley divided the vas deferens upon one side in a dog, and the spermatic artery and vein on the other. The testis on the side upon which the artery and vein were divided died and sloughed away. On the side upon which the duct was divided the testicle became somewhat larger than natural. During six years the dog was twice seen *in coitu*, but the female did not produce. In 1829, Sir Astley killed him, and found the vas deferens below the division excessively enlarged and full of semen, and entirely obstructed, with some separation of its extremities; but it was open from the place of division to the urethra. Some time ago it was attempted in one of the Borough hospitals to cure malignant disease of the testicle by removal of part of the vas deferens, on the supposition that this would occasion wasting of the organ. We ridiculed the idea, and conjectured that such an operation would be more likely to occasion repletion than depletion of the testis; a conjecture confirmed by Sir Astley's experiment.

The wasting of one testis in early life does not prevent the person from having children afterwards. Neither does the removal of one testis seriously diminish the virile powers. A gentleman had a testis removed in January, 1821, for an enlargment and great hardness. He recovered in three weeks. His wife, by whom he had already had one child, nursed him during his confinement, and in March she proved pregnant, about nine weeks after the performance of the operation. A man whose testis had been absorbed for fourteen years, by wearing a truss for congenital hernia, has since married and has now a child not quite a year old.

It has twice fallen to Sir Astley's lot to remove the testis of persons who had already lost one. In 1799 Mr. Cooper removed the testis of a man at Guy's. This and the following are related in Sir Astley's characteristic manner, and we cannot mutilate them.

"The second operation (on the patient alluded to) was performed by myself in Guy's Hospital, in June 1801, for a chronic abscess in the testis. On visiting him four days after the operation, he informed me that he had, during the last night, an emission, which appeared upon his linen; and, struck with the curiosity of this circumstance, I requested my then apprentice, Mr. Travers, to occasionally visit him after his recovery, and he had quitted the hospital; and I have myself, during the twenty-nine years which have since elapsed, repeatedly seen him. He had been married prior to the loss of one testis.

For nearly the first twelve months, he stated that he had emissions *in coitu*, or that he had the sensations of emission. That then he had erections and coitus at distant intervals, but without the sensation of emission. After two years he had erections very rarely and very imperfectly, and they generally immediately ceased under an attempt at coitus.

Ten years after the operation, he said he had during the past year been once connected.

In 1829 he visited me, because he was a severe sufferer from piles. He then stated that for years he had seldom any erection, and then that it was imperfect; that he had no emissions from the first year of the operation; that he had for many years only a few times attempted coitus, but unsuccessfully; that he had once or twice dreams of desire, and a sensation of emission, but without the slightest appearance of it. The penis is shrivelled and wasted. He shaves once a week, and sometimes twice. His voice, naturally rather feeble, remains as at the time of the operation.

From this man's declarations, I believe that the history of eunuchs, if perfectly castrated has been very much misrepresented; for it would seem that, after a few months, he lost all seminal emission, but that the erectile power remained for a few months more; and then, excepting at very distant periods, and but imperfectly, even that power ceased, and the penis became shrivelled and diminished.

The second case in which I removed the testis, was in a lad in Guy's Hospital, aged sixteen years, who had previously the other testis extirpated. The disease each time was a scrofulous abscess, with subsequent ulceration. The lad had not reached puberty, and he was very weakly and emaciated. Five years afterwards, as I was stepping out of my carriage at a patient's door, a fat sleek-looking young person said—'how do you do sir?'—I said, 'very well, but I do not know you.'—'Have you forgotten removing my testicles in Guy's Hospital, five years ago?' 'Oh yes, I recollect you; you look very well.'—'Yes, but I am very unhappy;' and he immediately burst into tears.—'Why, what do you lament?'—'Oh sir, that I am not as other men—I often wish that I were dead.' Desirous to cheer him, I said—'you are a lucky fellow, for you are saved from many evils.'—He shook his head, and I left him sorrowful." 55.

This concludes the anatomical portion of Sir Astley Cooper's volume. The other parts have been copiously analyzed before, and it now only remains for us to take leave of the worthy Baronet. Our readers are well aware that it is not our custom to notice elementary matter, and therefore we seldom or never review those multifarious and often very excellent treatises on anatomy, physiology, &c. which are daily issuing from the press. But we cannot look upon even the anatomical part of this work in such a light. The descriptions are so excellent, frequently so original, always so correct, that we should not consider ourselves justified if we did not give them currency in the pages of a journal which professes to offer useful information to its readers. Without this part the practical doctrines would be only partially understood, and certain we are that no well-informed man in the profession will quarrel with us for what we have done. The majority of medical men could but ill afford, indeed they could not afford at all, to purchase so expensive a work, and to them it must be acceptable to receive the substance of the whole through the cheap medium of a periodical publication. So much for ourselves and now a word to the author on parting. He has done himself honour by this work, he has shewn that in age he lacks little of the energy, and none of the zeal of his youth and his manhood. With his usual penetration, he has seen the road to fame and

to honour, and has pursued it with his usual straight-forward determination. Long may we boast of him amongst us as one of our greatest ornaments; long may he retain the wish and the power to convey information to his brethren; in the words of the lyric bard, though without intending quite so gross a compliment:—

Serus in cœlum redeat, diuque
Lætus intersit populo!

XIII.

First Principles of Medicine. By *Archibald Billing*, M.D. Fellow of the Royal College of Physicians, Lecturer on Medicine at the London Hospital, &c. 8vo. pp. 131. Underwoods, 1831.

Although this little volume appears principally designed for students, a perusal of its contents has led us to form a very favourable opinion both of the author and the work. It is justly observed that "the object of lectures is to convey to the student, in a condensed manner, that knowledge, in abstract, which will enable him to understand what he sees at the bed-side, and the observations of the clinical professor;—without which clinical instruction, all that the memory may be charged with from books or lectures, is but vanity." It is a great pity that the medical officers of our hospitals and infirmaries are only just now becoming alive to this truth—probably from a consciousness that their own personal and pecuniary interests are at stake on the occasion! We shall now proceed to give some extracts from this little volume which will, we think, confirm the favourable opinion which we expressed of it in the outset.

The Circulation.

"The heart *contracts* by *muscular* action and *relaxes* alternately, the arteries keep up a constant *contractile pressure* on their contents, not an alternate contraction and relaxation, but a continued contractile effort which is overcome by the action of the heart; when there is much blood sent into them they are distended, and if there be little blood sent into them, as after hæmorrhage, their tendency to contract causes them to close, so as to keep always full, and to preserve a constant stream of the blood even during the temporary relaxation of the heart; and the arteries yielding and adapting themselves to the pressure of the heart and reconstracting on their contents, whilst the heart is relaxed and filling, is the cause of the equability of the stream in the veins, nay, the stream even in the arteries is much less in jets than is supposed by those who judge from the mode of its flowing from a wounded artery; for though, when there is a free escape from the wound, the impulse of the heart causes an unequal stream, it must be remembered that in the tube, unwounded, that force would have been expended in stretching the artery, whereas the artery when wounded, ceases to be other than as a simple tube, the elasticity not being called into operation, on account of the escape of the blood from the wound.

The most simple mechanical illustration perhaps, is the double bellows of a smith's forge, which keeps up a constant current of air; though the handle works with intermissions, so that the blast into the fire would be in puffs, if it were not for the weight of the upper half of the bellows, which keeps forcing out the air in a continued current, whilst the hand is drawing back to make another impulse.

It has been supposed that the circular fibres of the ARTERIES were muscular, and that they contracted and relaxed at each pulse, and that the throb felt, was caused by a dilatation of the artery; those fibres are NOT MUSCULAR, but more approaching to a ligamentous tissue, firm and, though elastic, not yielding to the force of the heart, but on the contrary, preserving the CALIBRE of the artery UNIFORM, as may be seen by laying bare an artery in a living animal, or when the artery is laid bare in an operation; it is LONGITUDINALLY that the arteries are STRETCHED at each injection from the heart, by which their capacity is increased, the consequence of which, from their being bound down in various places, is, that there is a SERPENTINE motion in the artery where it is at all loose.

The fibres of the middle coat of the artery being arranged circularly, allow of the separation laterally, and thus *accommodate* themselves to the *elongation*, of the tube, whilst they *resist* its *dilatation*. Now it may be thought that the movements of arteries *seen* at the wrist and in the temples is their dilatation, but it is the serpentine motion caused by the alteration of the curve, the artery being elongated at each injection from the heart.

Where the artery is perfectly straight you may lay it bare and scarcely see it move, but the moment you compress it with the finger, or tie a ligature around it, you perceive it pushed at every pulse. To illustrate the deception of the sensation which the pulse gives, as if the artery were dilated at each beat; if a long vein removed from the body have a syringe adapted to one end, the other being raised, or arranged with a spring valve, which yields to the jets so as to keep it full, and fluid be sent through in jets, it will upon pressure by the finger give the sensation of dilatation, but the eye perceives none: again, if any one grasp the leather tube of a fire or garden engine, the sensation given will be that of its expanding in the hand at each stroke of the pump, but the eye contradicts the sensation, it is merely the tendency to resume the cylindrical form from the outward pressure of the fluid, but not expansion.

It has been *attempted* to be *proved* that the heart has an *active power of dilatation*,* by which it helps to *refill* itself, sucking in the blood as it were, and one proof is brought forward from the heart of large mammalia, as the horse, ox, or whale, which affords the phenomena of contracting and expanding after removal from the body; but the expansion is simple relaxation, as when after the first has been shut with an effort, upon the relaxation of the flexor muscles it will be seen to expand slightly without any action of the extensors; and when a large heart is relaxing, if the hands be pressed on opposite sides of it they will be sensible of an apparently active expansion from the mere gravitating recovery

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* "The '*impulsion*' of the heart against the side (which takes place between the first and second sound, that is just as the auricles have filled the ventricles, and the latter become rigid commencing their contraction), is in proportion to its muscular action, and is produced by the heart assuming a form more approaching to the globular, and becoming firm at the same time, as when the gastrocnemii muscles act; the heart being in an angle between the diaphragm and parietes of the chest, the increase of its transverse dimensions has the effect of the driving of a wedge, forcing against the ribs. Now these actions may be very forcible, but if they be too rapid, there is not time for the heart to receive the usual quantity, so that only a little being sent into the arteries at each contraction, the pulse may be small, when the heart is acting strongly, as in palpitations, and an ignorance of this fact might lead to the administration of stimulants when not required (to say the least), if the pulse alone were consulted; cæteris paribus impulsion is increased by hypertrophy, diminished by dilatation."

of position of such a mass of matter. The heart, in fact, not opening, but *falling open after* each *contraction*." 12.

The above is probably as good an explanation of the circulation as our present state of knowledge can offer. It will be seen that our author has not adopted the theory of Dr. Corrigan on this occasion.

Passing over the section on "NERVOUS INFLUENCE," a subject that has hitherto baffled all researches, we come to INFLAMMATION; and it will be seen, by the following extract, that Dr. Billing has adopted the more rational opinion that the vessels are in a state of *dilatation* rather than morbid *activity*, where inflammation obtains.

"An inflamed part is redder and swelled; where the vessels are visible, as in the eye, we can see the redness is caused by the minute vessels becoming larger, so as to admit red globules of the blood, which before admitted only the more fluid and transparent part, or the minute vessels carrying red globules becoming larger; this enlargement of vessels is not from increased action, but on the contrary, from their action being diminished, their giving way, and being *dilated* by the injecting force of the heart. The way to diminish the inflammation is by increasing the action of the arteries, as by cold or astringents, which make the arteries contract, that is, increases their action; so that so far from the arteries in an inflamed part being in a state of increased action, one of the means of *diminishing inflammation* is by *increasing* arterial *action* in the part inflamed. It is common to remark the *throbbing* of the *carotid* arteries as increased action, but the more they throb it shews that they the *more yield* to the injecting force of the heart; when the eye, or any other part, is injured by heat, or a stream of cold air, a blow, or cantharides plaister applied to the skin, &c. the part becomes redder from the vessels enlarging, and carrying either more red blood, or admitting red blood where there was none before. Now in this first and simplest instance of inflammation, the heart does not act more strongly than ordinary, not affecting the pulse, so that the capillary arteries evince debility, having given way when there is no more force than they bore before without distention; from this they sometimes recover of themselves, gradually contracting to their natural size; or if not, the simple applicatlon of cold, or astringent lotion, makes them contract, and the redness disappears.

On the other hand, by savine or cantharides ointment we can produce an inflammation, such a relaxation of the capillaries that those which can be dilated, are, and separate from those which are confined by firm surrounding substance, by which means warts are thrown off, which has been called increasing vascular action beyond what they could bear; it is increasing the *size* of the vessels, but not their *action*. It is the opinion of some persons even at the present day, that the motion of the *blood* is *accelerated* in inflamed parts, though the experiments of PARRY and others prove the *contrary* to be the case, as follows from the *capillaries* being *enlarged*, inasmuch as when fluid passes through a given space, the current beyond that will be slower in proportion to the wideness of the channel, as every one must have observed in a wide part of a river, where the current becomes slower; and the same may be observed by passing water mixed with grains of amber through a glass tube with a bulbous enlargement in the middle, the current will slacken in the bulb and resume its velocity beyond it.

Some will allow that the capillary arteries where the blush of inflammation is are weak, as they visibly have given way, but they still talk of *increased arterial action*, and say that the arteries *around* or leading to the inflamed part are in increased activity, as a part of the condition or what keeps up the inflammation; not considering that an increase in their action would be contraction, and so a diminution of the flow of blood to the inflamed part; wherefore an increased action in the arteries both in and leading to the inflamed part is just what is required to diminish the inflammation.

The more the heart acts the more of course it forces the arteries of the inflamed part and the *pulse* shewing the degree of power of *action* of the *heart* is erroneously by some considered as an evidence of arterial action, as the throbbing of the carotid arteries for instance; the heart then acting against the capillaries, if we cannot get them to act strongly enough to resist its force we are obliged to diminish the force of the circulation, either by taking away blood which diminishes both the quantity of blood sent to the arteries and the action of the heart itself, and in this way we leave less for the arteries of the inflamed part to do; or, we can lower the force of the heart by medicines, such as digitalis, &c.; here for illustration the simplest cases of inflammation have been taken, where the heart is acting naturally the inflammation being from injury." 23.

Dr. Billing takes occasion to pass a well-merited eulogium on M. Laennec. "Compared (says he) with what we know of diseases of the viscera in the chest, the sum of information attained twenty years ago, was but darkness visible."

We cannot follow our author through all his disquisitions, which are generally ingenious and practical; but must content ourselves with one or two more extracts.

"I may now offer some illustrations of the effects of stimulants, sedatives, and narcotics, singly in producing good results.

A boy was brought into the London Hospital with a swelling of the knee, which was in constant pain, he had been in some days when I saw him, he was much emaciated, and irritable and languid, consumed by hectic feverishness, got no refreshing sleep from opiates, the pulse 130, thready or rather wiry, very hard, he was too weak to apply more leeches to the knee, though hot, tender to the touch, and not bearing the slightest motion, as he kept it constantly bent, and could not bear it moved; the indication was to take off the injecting force as the vessels could not be otherwise relieved; fifteen drops of tincture of digitalis were ordered three times in the twenty-four hours; after the second dose he got better sleep than he had from the opiates, the pulse came down, and in less than a fortnight he grew stouter, as the knee grew smaller, and was able to walk home.

A medical student had swelled knee with great pain preventing rest, he was treated secundem artem, and amongst the rest by one of the best surgeons now living in England, he had not fever, did not emaciate, but was tormented with pain, and sometimes painful applications; one night, coute qui coute, he took what he imagined to be about a teaspoonful out of a bottle of tincture of opium; he slept twelve or fourteen hours, awoke free from pain, and very soon walked to the hospital without any more medicine.

Instead of a knee case, cured by stimulants, I can mention one worth attention as not of unfrequent occurrence, and of great consequence to be aware of. A young female had been treated for two or three weeks by bleeding, neutral salts, and low diet, for what was called determination to the head, supervening upon what had been considered a pleuritic affection; there was jactitation when I saw her, sense of oppression at the chest, incoherence of speech, severe pain of head occasionally causing her to put her hand to it, and to cry out, intolerance of light and sound, flushed face, but mark not fever, weakness but not sluggishness of the voluntary motions; the pulse jerking as you find after hæmorrhage, but not firm; the tongue not foul, but white as you frequently see with an empty stomach. I ascertained the pain at first to have been in the *left* side, and from other circumstances, I felt satisfied that the present state was clavus hystericus kept up by inanition, she had been allowed the day before a little weak chicken broth, but her being supposed not able to bear it caused my being consulted; wine and animal food gradually administered, without any

medicine but a few drops of vinum ferri, soon calmed all the symptoms of what was called determination to the head, and health was restored in a few weeks.

These three cases will illustrate several points; here we see, 1st, Local inflammation, and irritation, combined with fever which it has produced, lesion of the nervous system; food and wine, affording no nourishment, narcotics no rest, cured by a sedative, digitalis.

2d, Local inflammation and irritation producing not fever (lesion of the nervous system) but constitutional irritation of it, chiefly evinced by loss of sleep, no indications for stimulants, sedatives, or tonics, and no want of strength or appetite, a narcotic by cutting off the communication with the nervous system gave it time to regain its natural state, and subsequently to give energy to the vessels of the inflamed part.

3d, Local inflammation and irritation (uterine), having produced, not fever, (lesion of the nervous system,) but irritation of it, constitutional irritation, hysteria: debility arising from want of nourishment, so that narcotics administered procured but temporary relief as giving no nourishment, and sedatives produce aggravation of the symptoms, stimulants and food by giving strength acted as a tonic, restoring power of the nervous system, and consequently to other parts.

Though keeping the bowels open is useful in chorea, and in a variety of nervous affections, to promote the digestion, &c.; constitutional irritations, hysteria, &c., are always aggravated by much depletion, so that until food, and tonics give strength, there cannot be cure; now sometimes in constitutional irritation the patient cannot eat, any more than in fever, though from a different cause, sometimes there is no inclination for food from morbid delicacy of the senses of taste, and smell; sometimes from irritability of the primæ viæ a mouthful produces a sense of repletion; and this nervous anorexia sometimes increases the difficulty of distinguishing between fever and irritation, and particularly when the primary local irritation is in the primæ viæ from indigestion, simulating gastroenteritis, inflammation of the mucous membrane." 117.

With the following passage containing our author's views of dropsy, we shall conclude this short notice of the work.

"We have now to enquire into the nature of Dropsy, that morbid state of the capillary exhalants, which sometimes results from Inflammation; and as Fever and Irritation though distinct affections, are frequently co-existing and complicated, so Dropsy is frequently combined with one or both of them.

Dropsy is an undue deposition of serous or watery fluid, by those capillary vessels of the serous membranes, and of the cellular tissue, which in a healthy state supply merely sufficient to keep those parts in a soft state.

Without for the present saying whether Dropsy be Inflammation or not, the proving or disproving of which proposition would not advance us in our investigation, I must observe, that the proximate cause of both is the same, a weakness and consequently giving way or enlargement of the capillary or minute arteries concerned; this cause I hold to be sufficient for the explanation of the phenomena, and as I denied arterial action to be increased in inflammation, so I deny that it is necessary, as many do, to refer to a diminished action in the absorbents as a cause of dropsy. I consider the action of the absorbents to be uniform, and that, though there may be, it is not necessary to suppose any alteration as to absorption, as a cause either of inducing, or removing dropsical effusion; for, considering the action of the absorbents to be uniform, merely to take up and carry off what is offered to them, it is evident that too great a quantity of fluid being poured out, the absorbents will not be equal to taking it up fast enough, but when we act upon the arterial capillaries, so as to check their exhalations, we know that, the absorbents, continuing their action, will gradually carry off the overplus of effused fluid; and we know, that we can restrain the effusion from arterial capillaries, in two ways, either by constringing them, or by allowing less fluid to go to them; but of the absorbents we know no demonstrable mode of altering

their action, and I hold that the *medicines* which are commonly *said* to *increase the action* of the *absorbents*, act on the *capillary arteries* so as to check their deposition, and that this is the true account of the removal of dropsical swellings, by the action of mercury and other medicines which cause either an alteration in the action of the capillaries, so as to stop their depositions, or by causing evacuation, actually diminish the quantity of matter supplied by the arteries, as Elaterium and diuretics do in dropsy, and Mezereon, Daphne Laureola and other drastic purgatives and emetics do in syphilis, when patients are cured without mercury by starving and sudorific and evacuant medicines.

Dropsy is not a disease in itself, a primary disease, it is only a constitutional disturbance, a symptom, a state induced by some diseased organ; the partial sudden effusions which sometimes take place from inflammation of a serous membrane such as the Empyema of Lænnec, from the pleura, (which by the bye is not the Empyema of Cullen) should rather be called Inflammatory Effusion than dropsy.

Dropsy is induced by any protracted disease which by irritation or slow fever robs the secretory organs of their nervous energy, as the kidneys, skin, and intestines, but above all the kidneys and skin, and when they cease to secrete the redundant fluid oozes from the overloaded capillaries, not merely overloaded but weakened, in consequence of the deteriorated state of the nervous system, and unless we can restore energy to the nervous system, so as to give tone to the exhalent capillaries, we in vain evacuate the fluid either by tapping, or by diuretics, or cathartics such as Elaterium.

Thus Dropsy is not to be considered as an isolated or single disease, except when, for a time, to prevent a patient from being overwhelmed by the fluid in the cavities, we turn our whole attention to getting rid of it, either by tapping, or profuse evacuation, as by Hydragaque purgatives, or diuretics, and other medicines.

When we see a patient with dropsical swellings, our great object must be to cure the disease which produced the symptom of dropsy, dropsy being but a symptom.

It is true some cure both by attending to the one symptom alone, as when dropsy is the consequence of inflammatory disease of the lungs, pericardium, or liver, in which squills and digitalis are employed specifically as diuretics, with purgatives, to evacuate the fluid by the kidneys and bowels, and some form of the mercury at the same time empirically; although the whole attention is given to the symptom of dropsy; yet the treatment is also applicable to the local affection; and in such a case, often the primary and secondary diseases are cured together; and referring to local inflammation as the root of some dropsies, we can understand how in many cases, the abstraction of blood becomes a most useful assistant in the cure; as well as the advantage of bloodletting, when the heart and capillaries do not balance in power, for the mere object of taking off the injecting force of the heart, as for instance, when the specific diuretics fail from the congested state of the kidneys, venesection often proves the most powerful diuretic, as sometimes the most efficient cathartic.

On the other hand, in Dropsy of broken down constitutions, as well as in Inflammations with failure of the vital powers, by referring to the influence of the nervous system, in giving strength to the capillary system, so as to enable the capillary arteries to contract and resist the distending force of the heart, we can understand how, in some instances, stimulants as wine, by increasing the nervous energy, and consequently capillary action, may restrain the effusion, when evacuation would sink the patient; so that dropsy like inflammation is cured by opposite treatment, according to the state of the constitution." 128.

From the above extracts our readers will probably be induced to form a very favourable opinion of the author and his work.

XIV.

A Practical Treatise on the Diseases of the Eye. By *William Mackenzie*, Lecturer on the Eye in the University of Glasgow, and one of the Surgeons to the Glasgow Eye Infirmary. 8vo. pp. 861. London, 1830.

It is not because this book is a bad one that we have omitted making it the subject of review ere this. Other matters have occupied our attention, and the substance of other works has been communicated to our readers. It is out of the question to analyze a work consisting of 861 pages, and professing to treat of all the diseases of the eye. The attempt would be preposterous. And yet we are unwilling to forego all the stores of information and utility which such a volume must contain. Ophthalmic surgery has made such rapid advances within the last half century, that nine surgeons out of ten are becoming tolerable oculists; whereas beneath the old regime, many men of eminence and talent asserted openly and without scruple, that they knew nothing whatever of the matter. Under such circumstances the Medical Journals of the day must lend their helping hand to this department of professional study. Many country practitioners, ill treated and ill paid, can barely afford the small expense which a periodical publication entails, and certainly can afford no more. We purpose from time to time to devote some of our pages to such articles on practical subjects in the department of diseases of the eye, as may prove of service to those readers, who depend on the Medical Journals for the means of keeping pace with the movements of this most active age.

The subject which we shall first select is one which must interest all who have the treatment of any patients at all. It is the Ophthalmiæ, or Inflammatory Diseases of the Eye. This is a wider field than many routine practitioners may suspect, or admit. Yet we do not doubt that here, as elsewhere, the theorist, and the subtle wire-drawing nosologist may lay down distinctions without real differences, enjoin diagnoses which are either impossible, or, if possible, useless; and prescribe varieties of treatment ridiculous in the abstract, and impracticable in the performance. This is the curse of studying diseases too much in detail. A man who dedicates his life to the study of diseases of the eye, or the ear, or the toe, can never rest satisfied without refining. He is galled if that which exclusively occupies himself, be not made so extensive and so complicated as to occupy exclusively all who direct their attention to it. In fine he too frequently becomes a quack and conceals the little that he knows, or spreads it out that it may appear imposing and large, and endeavours to erect a small part of a system or a science, into a science or system by itself. We do not affirm that such is the error of Mr. Mackenzie; we deny that. Yet we think that his volume might be compressed with some advantage, and, if we were disposed to hint a fault or hesitate dislike, we should say that too much pains are taken to comprise every thing within the 900 pages. But enough of this for the present.

Of the Ophthalmiæ in general.

Inflammation has many stages, and we need not tell our readers now that

it has also many characters, determined by the texture in which it occurs. Since the days of Bichat attention has been closely and most successfully directed to the influence of tissue on disease, or, to speak more philosophically, to the nature of the morbid alterations of the tissues.

"The conjunctiva, sclerotica, cornea, iris, chrystalline capsule, and retina, present a series of the modifications of inflammation, to which I have just now referred, sufficiently distinct to convince the most sceptical of the truth of what I have been asserting, and sufficiently striking to rouse the most inattentive to research. The muco-cutaneous conjunctiva secreting a flood of purulent matter, as in the ophthalmia of new-born children—the fibrous sclerotica affected for months with rheumatic inflammation—the transparent fibro-cartilaginous cornea becoming opaque, or being destroyed layer after layer by a penetrating ulcer—the erectile iris losing all power of executing its motions of expansion and contraction—the chrystalline capsule pouring out coagulable lymph from its serous surface, and this lymph forming the medium of morbid adhesions—the nervous retina, too deeply seated to be observed immediately, but in a few hours losing its inconceivably delicate sensibility—these are facts in which are displayed the modifications of inflammatory action and the various consequences of inflammation, fully as distinctly and as strikingly as they are manifested in any other, nay in all the other parts of the body put together." 318.

But the inflammatory diseases of the eye are subjected to the control of other agencies, of other influences natural or artificial. Scrofula, syphilis, gout, mercurialism excite or modify inflammation in its textures. Inflammation too, beginning in one tissue extends to another: from without to within, from within to without. No doubt, many different inflammatory affections of the eye have been lumped together under the convenient term of ophthalmia; but, on the other hand, to describe inflammation as running a defined course in one texture of the eye, and in that alone, is to describe what scarcely exists in nature. Still, for the sake of study, of science, and of beneficial treatment, it is well to be as precise in our notions and descriptions of disease as its nature will permit. The remedies advantageous in inflammation of the sclerotica are injurious in that of the conjunctiva, and so on; yet many have a small stock of nostrums for ophtalmia, which, like Procruste's bed, must fit all corners, and if it fails they are naturally brought to their wit's ends. Like a celebrated oculist, they spoil their "hatful of eyes," but, unlike that gentleman, they are little the better for the business. The following is the arrangement of ophthalmiæ proposed by Mr. Mackenzie.

"I. CONJUNCTIVITIS.
- i. CONJUNCTIVITIS PURO-MUCOSA.
  1. Catarrhal.—2. Contagious or Egyptian.—3. Leucorrheal, or Ophthalmia Neonatorum.—4. Gonorrhœal.
- ii. CONJUNCTIVITIS SCROFULOSA.
  1. Phlyctenular.—2 Pustular.
- iii. CONJUNCTIVITIS ERESYPELATOSA.
- iv. CONJUNCTIVITIS VARIOLOSA.
- v. CONJUNCTIVITIS MORBILLOSA.
- vi. CONJUNCTIVITIS SCARLATINOSA.

II. SCLEROTITIS.
- 1. Rheumatic.

III. CORNEITIS.
- 1. Scrofulous.

IV. IRITIS.
1. Rheumatic.—2. Syphilitic.—3. Scrofulous.—4. Arthritic.
V. CHOROIDITIS.
VI. RETINITIS.
VII. AQUO-CAPSULITIS.
VIII. ANTERO-CHRYSTALLINO-CAPSULITIS.
IX. POSTERO-CHRYSTALLINO-CAPSULITIS.
X. VITREO-CAPSULITIS.
XI. CHRYSTALLINITIS.

Appendix.

1. Traumatic Ophthalmiæ.—2. Compound Ophthalmiæ, as the Catarrho-rheumatic, pustulo-catarrhal, &c.—3. Intermittent Ophthalmiæ." 321.

It would be easy to start objections to this arrangement, the distinctions of the genus conjunctivitis, being particularly arbitrary. But this does not signify much. We pass to a short section on the remedies for the ophthalmiæ.

Several general rules may be laid down on this head. First, discover the cause of the inflammation, if possible, and remove it; secondly, defend the eye from new causes of irritation, for the first may have been local, but the latter may be constitutional. Amongst the various remedies which may be employed for the cure of ophthalmia, we may enumerate, 1st. *Blood-letting*. Venesection in the arm, leeches round the eye, and division of the inflamed conjunctiva are generally employed. Opening the temporal artery, the external jugular vein, or the nasal vein, or cupping from the temples is seldom necessary. The first three cannot, as might readily be imagined, be indifferently substituted for each other.

"I know of no inflammatory disease of the eye which is curable by bleeding alone; and I look on the attempts to cure the contagious or Egyptian ophthalmia by taking away very large quantities of blood, till the inflamed membrane grows pale from depletion, as the veriest of folly; first, because even were this paleness produced, it could be no test of the disease being subdued; secondly, because a degree of blood-letting sufficient to produce even an approach to such an effect, would leave the patient in a state of great and unnecessary debility; and thirdly, because the disease could be cured by a much milder plan of treatment. All the ophthalmiæ require other remedies besides the taking away of blood; and, therefore, while we value this means of cure very highly, we must by no means trust to it alone in any case." 323.

The blood should be taken in a full stream, and its quantity be regulated by the circumstances of the case. Leeches should generally be applied on the temple, forehead, and side of the nose, and not on the loose substance of the lids. The number must vary from one to twenty, or more. One leech to the middle of the upper eye-lid is often very useful. In some chronic cases of inflamed and thickened conjunctiva, one or two, fixed on the internal surface of the lids, will be found useful. Temporal arteriotomy, scarifying and cupping on the temples, produce irritation and preclude the use of other means; besides, the bandaging afterwards is injurious. Scarification of the palpebral conjunctiva is a valuable mean of cure. One or two deep incisions should be made along the whole length or the inner surface of both lids, which ought to be alternately everted and allowed to return to their natural position, which greatly promotes the continued flow of blood. Snipping across individual enlarged vessels may be classed with

scarification. Mr. Mackenzie raises a small fold of the conjunctiva with the forceps, and snips it away with the scissors ; the vessel is seldom thus divided, but is exposed, and may easily be raised with a small hook from the surface of the conjunctiva, and divided. The removal of a circular portion of the conjunctiva is almost laid aside, and Mr. Wardrop's mode of evacuating the aqueous tumour has never come into general use.

Purgatives. An active purge of calomel and jalap, employed early, is often sufficient of itself to cut short an attack. In the course of these diseases occasional laxatives are always necessary ; in many cases, especially in children, nothing but a continued use of purgatives will effect a cure.

Emetics. These are extremely beneficial in the treatment of various inflammatory affections of the eye ; and in chronic cases they promote the absorption of unhealthy depositions. Diaphoretics are also useful adjuvants.

Alteratives. Of these mercury is the chief, and of its powers in controlling the internal ophthalmiæ, especially iritis, we need say nothing here.

Tonics. The scrophulous ophthalmiæ, and almost all others when chronic, are benefitted by tonics, and especially by cinchona. The employment of the sulphate of quinine is an immense improvement in ophthalmic practice. The mineral acids and chalybeates are very serviceable in many ophthalmiæ.

Narcotics. Two of the most painful ophthalmiæ are the rheumatic and catarrho-rheumatic. Laudanum rubbed on the forehead and temple does much to relieve the pain, but our author looks on the combination of calomel and opium as almost specific. Opium is occasionally employed directly to the eye in vapour and in fomentation. Hyosciamus, belladonna, and stramonium are of inestimable value, in consequence of their power of dilating the pupil. The extract is most commonly smeared on the brow. If severe inflammation be present in the iris, they have little effect ; but if the attack is incipient, or yielding, the pupil is speedily expanded.

Refrigerants. In the internal opthalmiæ they are positively injurious, and in most other cases reaction follows their employment. Incipient inflammation of the external covering of the eye may sometimes be checked by cold lotions, but tepid ones are equally as useful and more safe, on which account Mr. Mackenzie seldom makes use of the former. Nitre is occasionally given internally in some ophthalmiæ.

Astringents. The argenti nitras and hydrargyri murias in solution have usurped, in our author's hands, the place of all other astringent lotions and drops. Even the cupri sulphas and lapis divinus may be laid aside, excepting in a few peculiar cases.

Stimulants and Escharotics. Such are the argenti nitras, calomel, red precipitate, sub-nitrate of mercury, vinum opii, &c. Most of them are destructive in the internal ophthalmiæ, but it is quite the reverse in conjunctival inflammation. Mr. Mackenzie reprobates a calomel or nitrate of silver ointment, but in another place he modifies this opinion. The red precipitate and sub-nitrate of mercury are only used in the form of salve. The vinum opii may be applied pure or diluted. There is no panacea. Counter-irritants are of much service, especially in the chronic stage of ophthalmiæ.

"Having thus gone over the chief classes of remedies employed in the treatment of the ophthalmiæ, I may mention that much is to be effected also, in the cure of these diseases, by dietetical regulations, using *dietetical* in its original and extended sense, and comprehending under it every particular in the *mode of life*. Thus, attention to cleanliness, by the removal of morbid discharges from the eyes, exclusion from an improper degree of light, exposure to pure air frequently renewed, early going to rest, quiet sleep, repose of body and mind, a properly regulated diet, and regulated exercise; all these, and many similar observances, are in a high degree conducive to recovery, while a neglect of one or more of these rules is often the cause of prolonged and severe attacks of inflammation, in different textures of the eye." 327.

Conjunctivitis in General.

Like the other portions of the mucous system, the conjunctiva is liable to inflammation of a puro-mucous, blennorrhœal, or catarrhal character; and it is affected with diseases evidently partaking of the nature of cutaneous eruptions. The net-work of large, tortuous, scarlet-coloured vessels, admitting of being readily drawn aside, distinguish sclerotitis from conjunctivitis. To be sure, when the sclerotica is inflamed, the conjunctiva sooner or later participates, and vice versâ; yet the inflammation may begin in one part only, and continue to affect that most severely. Passing over a short section on the puro-mucous conjunctivitis in general, we stop at—

I.—Catarrhal Ophthalmia.

Three ophthalmiæ are excited, especially in adults, by atmospheric influences; the catarrhal, the rheumatic, and the catarrho-rheumatic. The first is a puro-mucous inflammation of the conjunctiva; the second is an affection of the sclerotica; and in the third both the conjunctiva and sclerotica are attacked.

Symptoms. Catarrhal ophthalmia, the most common disease of the adult eye, is almost entirely confined to the conjunctiva and Meibomian follicles. The mucous secretion is increased, and occasionally becomes opaque, thick, and puriform; but in many cases it remains transparent. The Meibomian secretion, also increased in quantity and altered, concretes on the edges of the lids and amongst the eye-lashes, and binds them together during the night. In mild cases the redness is chiefly in the conjunctiva lining the lids. Not unfrequently there are spots of extravasated blood beneath the conjunctiva. In severe cases chemosis may take place to such an extent that the cornea may become infiltrated with pus, burst, and slough. Mr. Mackenzie has been led to attribute the destruction of the cornea, in such severe cases of ophthalmia, partly to the mechanical pressure exercised by the enormously distended conjunctiva of the eye-lids and eye-ball.

Diagnosis. The most strikingly characteristic sign of catarrhal ophthalmia is the sensation of roughness in the eye, of sand or dirt having got into it. There is usually little head-ach, and, when any, it is seated across the forehead and felt most in the morning. In the rheumatic ophthalmia one of the most remarkable symptoms is the supra-orbital or circum-orbital pain, severely aggravated during the night.

Causes. Atmospheric changes, and especially exposure to cold and wet,

are the exciting causes of the disease. An individual who has been once attacked is more liable to be affected again. In many instances catarrhal ophthalmia has proved epidemic, amongst a number of persons exposed to the same general exciting causes. It has prevailed at different periods in Italy, England, and France. It is said to be more common in Summer and Autumn. Mr. Mackenzie has no doubt that the disease may be contagious; that is, that the discharge, especially when distinctly puriform, if conveyed by any means from the eye of the patient to those of others, will excite a conjunctivitis still more severe, more distinctly puriform, and more dangerous to the transparent parts of the eye, than was the original ophthalmia. Dr. Guillié took the puriform mucus from the eye-lids of some children affected with puro-mucous conjunctivitis, in the Hôpital des Enfans at Paris, and introduced it under the eye-lids of four blind children. They were amaurotic, but the external surface of their eyes was healthy and entire; in all four a regular puro-mucous conjunctivitis was produced.

Prognosis. If neglected, or improperly treated, catarrhal ophthalmia will continue for many weeks, producing constitutional disturbance, and local mischief. The conjunctiva, particularly on the upper lid, becomes sarcomatous and rough, and by its friction brings on a vascular and nebulous state of the cornea, perhaps even white opacity of its upper half.

Treatment. Our author is convinced that violent general remedies are absurd, and that a local stimulating plan of treatment may be almost entirely relied on. We should give at the commencement a brisk dose of calomel and jalap, and afterwards occasional doses of neutral salts, determining to the skin by the spiritus mindereri, &c. In severe cases, a blister to the nucha is useful, or blisters may be kept open behind the ears. General bleeding is rarely necessary. Scarification of the palpebral conjunctiva is necessary only in cases in which there is some degree of chemosis, and a distinctly puriform discharge.

Weak solutions of acetate of lead, or of sulphate of zinc find no favour in our author's eyes. The feeling of sand in the eye and the inflammation are best relieved by dropping into the eye a solution of the nitrate of silver, of the strength of two to four grains to the ounce. A large drop is to be applied to the eye once a day by means of a camel's hair pencil. As a collyrium, Mr. Mackenzie employs a solution of one grain of corrosive sublimate in eight ounces of water. This to be applied to the eye thrice a day, milk-warm, upon a rag. In mild cases a few drops may flow in upon the eye; in severe ones, it must be injected over the whole surface of the conjunctiva, and especially into its upper fold, by means of a syringe, so that the whole morbid secretion may be removed, and the diseased membrane touched immediately by the solution. About the size of a hempseed of red precipitate ointment, melted on the end of the finger, is to be smeared on the edges of the lids at bed-time. The inside of the lids should be carefully inspected daily, and if there be any tendency to a rough and sarcomatous state of the conjunctiva, it should be alternately scarified or leeched, and touched with the solid sulphate of copper or nitrate of silver. Such is Mr. Mackenzie's treatment, and such he avers to have been almost uniformly successful. Catarrhal ophthalmia may be modified by struma, but of this more hereafter.

II. Contagious Ophthalmia.

This disease has attracted great attention. We shall endeavour to be as brief with it as possible. It is essentially the same with the catarrhal ophthalmia, but much more severe, and excited by contagion, perhaps by infection.

Symptoms. Their order and severity vary in different individuals suffering at the same time, in the same place, and from the same infection. The disease is said to be milder in women than in men; it is more severe as the age is near to puberty; in scrofulous persons it is always tedious, and more likely to destroy the eye. The disease is much more virulent at one period of its occurrence than another; it was worse at the Military Asylum in 1809 than in 1804. The purely inflammatory stage of the disease is often shorter than thirty hours, never surpasses it, purulent matter being then formed. Sometimes the inflammatory stage is so short and rapid as not to come under the notice of the surgeon. The disease appears to commence soon after the application of the contagious or infectious matter to the conjunctiva, but in many cases secretion of purulent matter has taken place before the patient is aware that he has any inflammation. The *healthy* individuals of any community likely to be infected should be examined daily. The right eye is more frequently and severely affected than the left, commonly both are attacked, at an interval of several days. When the symptoms succeed each other with moderate rapidity they occur in the following order.

"A considerable degree of itching is first felt in the evening, or suddenly there arises in the eye the feeling as if a particle of dust were between the lids and the eyeball. This is succeeded by a sticking together of the lids, principally complained of by the patient on awaking in the morning. The eyelids appear fuller externally than they ought to do. Their internal surface is inflamed, being tumefied and highly vascular; and the semilunar membrane and caruncula lachrymalis considerably enlarged and redder than usual. The swelling of these parts is soft, somewhat elastic, slippery, and easily excited to bleed.

In about twenty-four hours after the first symptoms make their appearance, the mucous discharge from the internal surface of each eyelid is considerable in quantity. It is still thin, but somewhat viscid, and begins to be opaque. It lodges at the inner angle of the eye. On everting the lids, their internal surface is observed to be much more vascular and tumid. There is also epiphora present, especially when the patient exposes his eye to a current of air. He complains of a sensation as if the eye were full of sand, but seems to experience but little uneasiness from the light. Not unfrequently, a considerable discharge of blood takes place from the conjunctiva, after which the swelling of the membrane diminishes for a time. This is sometimes repeated several times before the profuse puriform discharge sets in. It does not appear to arise from the rupture of vessels, but rather to come from the exhalents of the conjunctiva, dilated by red blood, or by a mixture of red blood with the transparent fluid which they usually carry.

The inflammation now extends to the whole internal surface of the eyelids. The secretion from the palpebral conjunctiva is much augmented, and becomes more distinctly puriform, being yellowish and thick. In many cases it is so abundant, that on the patient opening his eyes, the matter instantly flows over the cheeks. It irritates the skin, and even excoriates it. The swelling of the conjunctiva of the lids, and especially of the upper, increases with the discharge; partly from a serous effusion immediately under the membrane, partly from an unnatural and inflammatory developement of its vascular structure,

partly from a similar enlargement of its mucous cryptæ, and of the Meibomian follicles, giving rise to a sarcomatous appearance of the internal surface of the eye-lids." 339.

The disease may proceed no further, remain stationary for weeks or even months, and then gradually subside. In other cases the inflammation spreads rapidly to the conjunctiva of the eye-ball, small spots from extravasation of blood are sometimes observed, and chemosis is established. Sometimes the chemosis is only partial; but commonly, it gradually spreads from the lids over the surface of the eye towards the cornea, which at last it buries. The chemosis is accompanied by redness and swelling of the skin of the eye-lids, sometimes coming on suddenly, and attaining its height in a few hours, at others increasing gradually during several days. This sudden swelling renders the lids quite immoveable, occasioning at first inversion, afterwards eversion, especially of the lower. The sensations amount to little more than a sense of weight and stiffness, with little pain if light be excluded. When the conjunctiva of the eye-ball has become affected, the puriform discharge is greatly increased, but it varies in quantity and quality. It may continue with little change for twelve or fourteen days, the conjunctiva of the eye-ball becoming, in the meantime, sarcomatous, though never to the same extent as the palpebral. At length the disease begins to yield, but not unfrequently the internal surface of the lids remains in a sarcomatous state, and excites or maintains a chronic inflammation of the investing membrane of the cornea. This is a tolerably favourable case.

Sometimes the conjunctiva covering the cornea is thickened and in some degree detached. Superficial ulceration sometimes attacks the cornea giving rise to opaque cicatrices, and opposite the ulcerated part the iris sometimes adheres, or the whole substance of the cornea, and even the internal textures of the eye may be affected. There is then deep-seated pulsative pain in the eye, sometimes in paroxysms, sometimes uninterrupted. This pain is often very violent, and its characters vary in various cases, but it chiefly affects the branches of the fifth pair of nerves. The duration of the paroxysm varies; it appears to come on most frequently from 10 to 12 in the evening. During the pain the secretion of tears is more copious, and the purulent discharge almost uniformly diminished. It is only in the most violent form of the disease that frequent paroxysms of pain are met with. Rupture of the cornea frequently takes place under these circumstances, and staphyloma, with loss of sight almost invariably follow.

"The period at which this happens varies exceedingly in different patients. In some the daily occurrence of these paroxysms has continued for a number of weeks before rupture of the cornea is produced. In others, this is effected under the second or third attack, and gives a temporary relief. I say *temporary*, for even this melancholy event does not afford a termination to the disease, and often scarcely checks its progress. The severe pain is seldom present in both eyes at the same time, and although it occasionally happens that the attacks of pain alternate from the one eye to the other, the rupture of the one is generally produced before the severe pain affects the other. In some cases, where both eyes are destroyed by rupture of the cornea, the patient has no recurrence of the pain for some time after the rupture of the first; while in other cases, the pain almost instantaneously shifts to the other eye. It has been known that while the second eye was suffering rupture of the cornea, the first eye, by cicatrizing, was only becoming liable to the same accident again, and this second rupture of the cornea has been preceded by as much pain as was the first." 343.

Rupture of the cornea generally happens when the disease is at its height; the process is one of sloughing and ulceration. Through the opening, or openings, the still clear lens is sometimes seen lying in its capsule, and the internal parts of the eye appear natural. The iris is pushed forward into the opening or openings, it adheres, and partial or total staphyloma is the result. In certain cases it would seem that rupture of the cornea takes place under one of the violent paroysms of pain, before it has undergone much disorganization. In such a case, related by Dr. Vetch, the acqueous humour escaped by a division of the cornea nearly as clean as if made by a knife. But Mr. Mackenzie believes that this mode of rupture is very rare. Ulceration of the cornea commencing on its surface is one mode by which it is destroyed; infiltration of matter into its substance, is another, and the most frequent. In many cases the disease does not cease with the bursting of the cornea. The capsule of the lens soon ulcerates and the lens escape; more or less of the vitreous humour follows; and sometimes almost the whole contents of the eye-balls are evacuated, a small and deformed one being left sunk in the socket.

The external symptoms of the disease and pain cease at very uncertain periods. The external tumefaction of the lids usually disappears first, and then the chemosis. The lids have still a gaping relaxed appearance and secrete a little matter. In this state, which may continue for months, there is great liability to relapse, and the patient is capable of infecting others. The opacities of the cornea are sometimes removed with surprising rapidity. The enlarged and indurated state of the mucous follicles of the palpebral conjunctiva, and of the Meibomian follicles, and the vascular and nebulous state of the cornea are, in many cases, the latest symptoms to disappear. Mr. Mackenzie quarrels altogether with the term "granular conjunctiva." He says that the granular prominences in question appear to be chiefly the acini of the Meibomian glands enlarged.

Constitutional Symptoms. The early stage of this disease is entirely local, but afterwards fever is established. At last there is always much general uneasiness, and sleep is prevented by the paroxysms of nocturnal pain. Great debility comes on, and in Egypt the disease often ended in diarrhœa or dysentery, and sometimes in hectic.

Causes. A prominent point to determine is the contagiousness of the disease, or its power of propagation from one person to another. The return of the Egyptian expedition certainly introduced a severe contagious ophthalmia into this country, which afterwards prevailed extensively in regiments that had never served in Egypt, and which accompanied the British troops to almost every foreign station to which they were sent. Of the contagiousness of the malady we need scarcely furnish instances, after what has been recorded on the subject by Dr. Vetch, Sir Patrick Macgregor, and others. We are really sorry that we have not space for the account of a fearful ophthalmia which prevailed in the slave-ship Rôdeur, and has been described by M. Guillié. Of 160 negroes 39 remained totally blind, 12 lost each one eye, and 14 had specks, more or less considerable, of the cornea. Of the crew of 22 men, 12 lost their sight, amongst them the surgeon; 5 lost each one eye, and amongst them the captain; 4 had considerable specks and adhesions of the iris to the cornea. One man only remained

unaffected, to manage the vessel, and he was seized with the ophthalmia, three days after arriving at Guadaloupe.

Treatment. If employed early, the treatment recommended for catarrhal ophthalmia may generally check the disease. If it be more advanced, and especially if chemosis be present, blood-letting to syncope, followed within two hours by leeches will be necessary. The leeches ought not to be placed upon the lids, especially if the integuments are swollen and red, as the bites are apt to fester. We think the following remarks too judicious in the present days of venesection, to be passed unnoticed.

"We ought neither to delay the abstraction of blood, if the symptoms are smart, and the case of some days' standing; nor ought we, on the other hand, to indulge in the absurd expectation that profuse blood-letting is to check the disease completely, without the use of local applications. I hold any notions of this kind, which some may have entertained, as crude and irrational, and their practice as perhaps the most destructive which could be followed. By very profuse blood-letting, the patient is too much reduced, and the eye rendered more susceptible of disorganization. We must not for a moment indulge in the fancy that the stream of blood is allowed to flow, till the redness of the eye fades under our view, nor are we even to make the cessation of pain in the eye the condition for stopping the bleeding. These effects might not be obtained by abstracting 50 or 60 ounces of blood, whereas the same real benefit will follow in the course of an hour or two, if not more than 20 or 30 be taken, the patient will be less debilitated, and the course of the disease will with greater certainty be abridged.

Bleeding from the arm may with propriety be repeated, if in the course of 24 or 36 hours after the first venesection, the symptoms have not abated, or have increased in severity. Afterwards, also, should there be any signs of a renewal of inflammatory action, more blood is to be taken away. It is chiefly in cases where there is pulsative pain in the eyeball, and circumorbital pain, coming on in nocturnal paroxysms, that repeated general blood-letting is necessary." 356.

Mr. Mackenzie speaks highly of scarification of the conjunctiva; it may be repeated every second or third day. The antiphlogistic regimen, and a dark, well ventilated room are absolutely necessary. Purgatives are useful in all cases, and especially the emeto-purgatives, as tartar emetic with sulphate of magnesia. Diaphoretics are useful as soon as the active inflammation is subdued. Calomel and opium are of the highest benefit, next to copious venesection, in severe cases, attended with nocturnal circumorbital pain. Bark and other tonics are only useful in the chronic stage.

The local treatment is of no mean importance, and paradoxical as it may appear, it should be alternatively soothing and stimulating; either plan too exclusively employed will destroy the eye. It is of great importance that the eye should be frequently cleaned, which is best accomplished by syringing into it with some force a tepid solution of one grain of the oxymuriate in eight ounces of water. Our author decidedly condemns sugar of lead and sulphate of zinc injections. We do not share his horror of them. He prefers greatly the solution of the nitrate of silver, of the strength of about four grains to the ounce. If it fail, a solution of six grains of the sulphate of copper in an ounce of water may be substituted for it as an injection. The red precipitate ointment, or the citrine rubbed along the edges of the lids at bed-time, answer best in preventing them from adhering. Blisters on the nucha, or behind the ears, ought always to be employed.

Much relief is sometimes obtained from allowing the steam of hot water with laudanum to rise into the eyes; or from fomenting them with warm decoction of poppy-heads. Rubbing the head with warm laudanum when the circumorbital pain threatens to commence is also highly useful. Evacuation of the aqueous humour has been employed with the view of relieving the severe pain in the eye and head, and preventing bursting of the cornea. Our author conceives that it will seldom be required if the remedies already recommended be had recourse to. When the purulent discharge is gone the vinum opii proves an excellent application to the relaxed conjunctiva.

Preventive measures are of the highest consequence, especially to military surgeons. If troops be sent to countries where this disease prevails, let them guard against the exciting causes of catarrhal ophthalmia. Soldiers on guard or at bivouac should cover their heads well during the night, and in moist or cold situations should avoid currents of air as much as possible. As soon as there is any appearance of puro-mucous ophthalmia in a regiment, the medical officers should institute a daily and minute inspection of every individual belonging to it. Those affected should immediately be separated from the rest, and not be allowed to rejoin their companies till perfectly cured. Excessive crowding of the men together, especially in their dormitories, should be carefully avoided. The affected should be acquainted with the contagious nature of the disease, and warned against the modes in which it is likely to be communicated. Barrack towels should be entirely laid aside. It will be found salutary to parade the men frequently in their respective companies, with separate vessels of water, while an officer sees their faces and eyes carefully washed.

III. Ophthalmia of New-born Children.

This is a subject of the greatest importance to every practitioner. The disease is common; occasionally, we rejoice to say rarely, severe and shocking in its consequences under scientific treatment; but a thousand times more severe and terrible under bad. It is a puro-mucous inflammation, and has been termed the *ophthalmia neonatorum*, or *purulent ophthalmia of infants*. The sentiments of our author on the origin of the disease are deserving of serious attention.

"We have reason to believe that this disease is, in general, an inoculation of the conjunctiva by leucorrhœal fluid, during parturition; and that, therefore, it may be prevented, in almost all cases, by carefully washing the eyes of the infant with tepid water, as soon as it is removed from the mother. This is too seldom attended to; the child is allowed to open its eyes, the nurse sitting down with it on a low seat before the fire, or in a draught of cold air from the door, and nothing is done to the child for perhaps half an hour or longer. Exposure to the light, to the heat of the fire, or to the cold draught from the door, are all likely enough injurious to excite the eyes of the new-born infant; and, accordingly, some have been led to attribute the purulent ophthalmia which so frequently shows itself about the third day after birth, to these causes. It will, in general, be found, however, that when the child becomes affected with this ophthalmia, the mother has had leucorrhœa before and at parturition, and that the eyes have not been cleaned for some time after birth. To this the ophthalmia seems to be owing, for, like a disease communicated by contagion, it is sudden in its attack, and much more violent than we almost ever see catarrhal ophthalmia, so that it resembles in this respect the Egyptian, or the gonorrhœal inflammation of the con-

junctiva. That some of the cases of purulent ophthalmia, in infants, are catarrhal, is by no means unlikely; occasionally they may arise from the application even of gonorrhœal matter from the mother; but by far the greater number, I believe to be the consequences of leucorrhœal inoculation." 361.

Symptoms. It is usually on the morning of the third day after birth, that the eyelids of the infant are glued together by concrete purulent matter. If opened a drop of thick white fluid is discharged, and the inside of the lids is found extremely vascular and much swollen. If neglected or mistreated the swelling rapidly increases, the purulent discharge becomes very copious, and the skin of the lids assumes a dark red colour. In this state the eyes may continue for eight days, or even longer; but about the twelfth the cornea is apt to become infiltrated with pus, its texture is speedily destroyed, it gives way by ulceration, first of all exteriorly to the pus effused between its lamellæ, and then through its whole thickness: and this in a small spot only, or over almost its whole extent, so that sometimes we find only a small penetrating ulcer, with the iris pressing through it, and at others the whole cornea gone and the humours protruding. The disease in its early and manageable state is but too frequently neglected by the attendants, and misunderstood by the medical practitioner. Mr. Saunders imagined that the distruction of the cornea is effected by sloughing and not by suppuration and ulceration. Mr. Mackenzie is convinced of the contrary. Onyx, or infiltration of pus between the layers of the cornea, is the uniform harbinger of destruction; the lamellæ exterior to the pus give way by ulceration; and the ulcer spreads and deepens till the cornea is penetrated, often entirely destroyed. The little patients are fretful and uneasy, with white tongue and disturbed bowels. If the disease is neglected, the flesh wastes and the integuments become loose and ill-coloured.

Prognosis. "When a child is brought to us with this disease, our first business is carefully to clean and examine the eyes, explaining to the nurse the manner in which she is to remove the purulent discharge from time to time, and stating plainly what is likely to be the result of the morbid changes already present in the corneæ. If these important parts are only free from ulceration, and from purulent infiltration, however violent the inflammation may be and profuse the discharge, our prognosis may be favourable—the sight is safe. If there is superficial ulceration, without onyx, probably a slight speck may remain. If the ulceration is deep, an indelible opacity must be the consequence. If the iris is protruding through a small penetrating ulcer, the pupil will be permanently disfigured, and vision more or less impeded. If the ulcer is directly over the pupil, the probability is that the pupillary edge of the iris will adhere to the cicatrice, and vision be lost until a lateral pupil be formed in after-life by an operation. If there is a considerable onyx, we can promise nothing, for although under proper treatment, the matter may be absorbed, this is by no means a certain result; the purulent exudation may, on the contrary, increase, the cornea burst, and the eye become partially or totally staphylomatous. Whenever the person who brings the child to me announces that the disease has continued for three weeks, I open the lids of the infant with the fearful presentiment that vision is lost, and but too often I find one or both of the corneæ gone, and the iris and humours protruding. In this case, it is our painful duty to say that there is no hope of sight." 363.

Treatment. The purulent discharge must be removed three or four times in the course of the day with a sponge and the tepid corrosive sublimate

collyrium. Evert the lids, and wipe them clean with the sponge; and, if there is a tendency to continued eversion of the upper lid, push the swollen conjunctiva into its place, and bring down the edge of the lid. Besides the sublimate collyrium, the solution of the argent. nit. or cupri sulph. (four grains of the former, or six of the latter to the oz. of water) should be applied once, or at most twice a day, with a large camel-hair pencil, to the whole surface of the inflamed conjunctiva. To prevent adhesion of the eyelids at night, the red precipitate ointment should be applied along their edges at bed-time. If employed within the first two or three days, these measures are usually successful. If the case has been neglected for eight or ten days scarification of the conjunctiva, or the application of a leech to the external surface of the upper eyelid, is necessary. The latter may be first employed, and if not effectual, scarification may be employed next day. Blisters to the back of the head, or behind the ears, are of great service. Cantharides ointment spread on a bit of candle-wick, and laid between the head and the external ear, is a convenient mode of blistering. An occasional dose of castor oil is useful. Recovery from this disease is often very tedious, but when the symptoms have become stationary, Mr. M. has found from a quarter to half a grain of calomel daily very beneficial. Mr. Saunders recommended extr. cinchon. in threatened disorganization of the cornea, but our author prefers the sulphate of quina. The relaxed conjunctiva, remaining after the purulent discharge, may be advantageously touched once a-day with the vinum opii.

The succeeding section, which treats of Gonorrhœal Ophthalmia, we shall omit, having lately descanted so fully on the subject in our analysis of Mr. Lawrence's work. We pass to another variety of ophthalmia.

IV. Scrophulous Ophthalmia.

This is a very common disease, with highly characteristic symptoms, constituting 90 out of the 100 cases of inflammation of the eyes in young subjects. It is most prevalent from the time of weaning till about 8 years of age. Sometimes only one eye is attacked, sometimes both, and not unfrequently the disease passes from the one eye to the other. When both are inflamed at once, one is generally much worse than the other.

Symptoms. Redness at first is very slight. Sometimes a few scattered vessels are seen coursing through the conjunctiva towards the cornea, sometimes there is merely intolerance of light. Mostly three or four enlarged vessels are seen running towards the cornea, or over its edge towards its centre; they are evidently superficial. Not unfrequently they form a considerable fasciculus, and at the end of this a pimple is very likely to appear, if it be not already present. Sometimes the redness is pretty general over the conjunctiva from the first; as the disease advances it becomes increased, and the sclerotica appears somewhat inflamed.

This ophthalmia is an eruptive disease, one or more minute phlyctenulæ, or minute pustules, arising at the apex of each of the bundles of blood-vessels. Often a single minute elevated point, of opaque white colour, near the centre of the cornea, is all that is seen; at other times numerous pustules or phlyctenulæ are scattered over different parts of the conjunctiva, some on the cornea, and others over the sclerotica. The edge of the cornea is their frequent situation; the smallest are upon the cornea.

"Beer has particularly mentioned phlyctenulæ as distinguished from pustules in this eruptive ophthalmia. We unquestionably meet with pimples of different sizes in this disease. Some patients have them all small like what are termed phlyctenulæ, and others have them all large like pustules. The former contain a smaller quantity of fluid, and that thin and colourless. The fluid contained in the latter is greater in quantity and more like pus. I have not been able to decide whether there is any specific difference between the phlyctenular and the pustular cases. I have frequently observed that the pustular cases are not, in general, attended with so much intolerance of light. The cases in which children lie for weeks and months with their eyes shut, are phlyctenular. The pustular variety certainly does not differ from the phlyctenular merely in the inflammatory action being more severe in the former; for we meet with cases of very large pustules, in which the inflammation and pain are moderate, compared to what attend some cases of phlyctenula. The ulcer which succeeds to phlyctenula is sometimes superficial, but at other times it grows deep and penetrates into the substance, or even through the cornea, so that no distinction can be grounded on the kind of ulcer which follows the bursting of these pimples." 383.

The phlyctenulæ and pustules may be absorbed; if on the cornea, they leave a little albugo round them, which is generally absorbed in the course of time. Sometimes the albugo begins to spread over the cornea irregularly, pretty large red vessels running into it, and additional lymph being supplied, so as to form a "*vascular speck*," which is very tedious and troublesome. Often the pimples burst and become small ulcers, which are very annoying, and, on the cornea, are apt to obscure vision permanently by their opaque cicatrices. If the ulcer be on the cornea, and allowed to eat through it, a little fistulous opening of the cornea is produced, the aqueous humour is discharged, and a small portion of the iris protruding looks like the head of a fly, and is termed *myocephalon*. If several pustules form on the cornea at the same time, they sometimes unite with each other before they burst, purulent matter is infiltrated between the layers of the cornea, and thus a kind of onyx is formed. If the whole thickness of the cornea has been destroyed by ulceration, excepting its inner lining membrane, this is protruded through the opening in the form of a small vesicle; and this is termed hernia corneæ. At last this vesicular prominence gives way, and the aqueous humour is discharged. When there has been extensive prolapsus of the iris through an ulcer of the cornea, the pseudo-cornea formed over the iris is sometimes unable to withstand the presence of the aqueous humour, and is pressed forwards so as to form a partial staphyloma.

Intolerance of light is a very marked, general, and distressing symptom of scrofulous ophthalmia. It is always most severe in the morning, sometimes remitting so much in the afternoon as to allow the patient to open his eyes, aud see to a very considerable degree for some hours. On exposure to light, the intolerance is accompanied with strong spasmodic action of the orbicularis palpebrarum. These symptoms are not most severe in the most severe cases, far from it. It is frequently not near so intense in cases where there are large pustules on the conjunctiva covering the sclerotica, as where the eruption is more of the phlyctenular sort, or even where there is yet no pimple formed. There is always epiphora, or profuse flow of tears, often violent fits of sneezing. The irritation of the tears occasions a pustular eruption on the face, which is sometimes rendered exceedingly swoln, red, and painful. Pain does not appear to be a general attendant on the disease; and the intolerance of light appears rather to be produced by a sensation of

intolerable glare and dazzling on exposure, than by absolute pain of an inflammatory character. But pain during the night is not uncommon, the child often awaking screaming with it. There is usually a great degree of itchiness, making the patient rub the eyelids very much, and a feeling of sand in the eye, but less than in the catarrhal ophthalmia. Mr. Mackenzie accounts for the epiphora, intolerance of light, and spasmodic action of the orbicularis by the anatomical fact, that the lachrymal nerve, after supplying the lachrymal gland, goes to the conjunctiva and orbicularis palpebrarum.

Sometimes there are other local symptoms. The iris may be inflamed, though this is more usual in connexion with corneitis. Inflammation of the choroid or retina is still more rare; ophthalmia tarsi is very frequent. Other scrofulous symptoms are almost universally present with scrofulous ophthalmia, and occasionally alternate with it. Our author has seen this the case with scrofulous swelling of the knee. A porriginous eruption is frequently met with on the scalp, and an impetiginous eruption over the body, especially in those who live much on milk. The belly is generally hard and tumid, the bowels disordered, the whole frame relaxed and weak.

Remote or predisposing Causes. Of these, the scrofulous habit of body must be considered the chief. It were idle to enter here on the discussion respecting the nature or absolute existence of scrofula. All practical men know well what is meant, and that for the present is sufficient. Mr. Wardrop has described what he calls the *exanthematous ophthalmia*, but our author considers it nothing more than the scrofulous ophthalmia, and hits Mr. Wardrop rather hard on the occasion. Mr. Christian, of Liverpool, has described a *porriginous* ophthalmia, produced, as he says, by porriginous matter, carried on the fingers of the child from the ears or head to the eyes. The hint may be worth attention. Improper diet, want of air and exercise, and insufficient clothing are, of course, very frequent remote causes of the disease in large towns and among the lower classes. Our variable climate is also very operative; new attacks are most prevalent during North-easterly winds.

Exciting Causes. Measles, small-pox, scarlet-fever, themselves affect the eyes, leave them tender, and make them liable to this ophthalmia. Catarrhal ophthalmia is apt to degenerate, in scrofulous children, into the scrofulous. Excessive use of the eyes, especially by candle-light, teething, local injuries, are all causes of this disease.

Prognosis. This must be very guarded. No disease is so liable to relapse, and of this the parents should be made aware. When there are ulcers on the cornea, specks must necessarily follow. These will be more or less obstinate, according to the depth of the previous ulceration, and will impede vision in proportion to their extent. Perforating ulcer, followed by protrusion of the iris, leaves almost uniformly a dense leucoma, with deformed pupil.

Treatment. Under any treatment, scrofulous ophthalmia is frequently rebellious, and, till we discover a more certain and successful method of treating scrofula itself, it is likely to remain so.

"Is it incurable then? Are we to do nothing for it; but shake our heads, and leave the eyes to be destroyed? Not at all. Much may be done to relieve this disease. Although it is very difficult to cure it thoroughly, especially when the patient continues exposed to the influence of the same causes which originally produced it, yet it is rare indeed that medi-

cal treatment does not moderate the symptoms, and avert those changes in the transparent front of the eye, which in neglected cases are so often the causes of loss of sight. But when the practitioner does meet with cases, as sometimes he must do, which receive no benefit for weeks and months, but perhaps rather get worse, notwithstanding all that is done for them, he must not blame himself too much, but reflect on the intractable diathesis with which, in such cases, he is called to contend, and which he cannot change, and but too often can scarcely in the smallest degree ameliorate." 391.

We must always attend to the general health in the treatment of this ophthalmia. General blood-letting is hardly ever required, local not often. When inflammatory action runs unusually high, or is suddenly augmented by the formation of pimples or ulcers on the cornea, leeches to the eye-lids or temple are proper. If the affection is yet recent leeches should be frequently employed, whilst the redness of the conjunctiva is considerable, and the intolerance of light acute. Tartar emetic will often supersede the necessity for depletion, and by depletion alone no case of this disease can be cured, but much mischief may be perpetrated. Our author speaks most highly of tartar emetic. He usually commences his treatment with an emetic, either of ipecacuan or antimony, and with uniform good effects. If there is much quickness of pulse, he usually employs a course of nauseants, or emeto-cathartics. To an adult he gives the combination of emetic tartar with sulphate of magnesia, first as an emetic, and afterwards repeated according to circumstances. In chronic cases the antimony may be substituted at longer intervals and in pills, each containing from a quarter to half a grain. To children, from the 12th to the 6th of a grain may be given, according to the age of the child, thrice daily; in conjunction with salts, or in solution by itself, or in powder with a little sugar. Purgatives are always of great service. In recent cases a purge of calomel, with jalap, rhubarb, or scammony, will often "put out" the attack. It should be repeated at intervals of two, three, or more days, according to circumstances, but though highly beneficial, care must be taken not to push the debilitating action too far. The purgative plan is particularly useful when there is an impetiginous eruption over the body. Tonics are, of course, strikingly beneficial. Our author prefers to all the sulphate of quina in doses of half a grain to very young children, two grains to adults, rubbed up with a little sugar and given thrice a day. This medicine has often acted like a charm, in Mr. Mackenzie's hands. It may be given after an emetic and a purge, or the subdual of inflammatory excitement by tartar emetic. Next to quina stand the chalybeates, of which Mr. M. prefers the precipitated carbonate of iron, and the tartrate of potass and iron. They are most effectual in the pustular form. Rhubarb and the super-carbonate of soda are very serviceable, and the mineral acids are useful.

When the acute symptoms have subsided the cold-bath is very efficient; at an earlier stage, the warm should be frequently employed. Tonics should be continued after all inflammation has ceased, to prevent relapse. Change of air is an excellent tonic. A dry, warm, in-land air is preferable to the sea-coast, on account of the glare from the sea. Our author reprobates, as well he may, the indiscriminate use of calomel in this and in other diseases at the present day. After local blood-letting with evacuants, calomel and opium are sometimes extremely advantageous, and it may even be pushed so

far as to affect the mouth. Diaphoresis is of much importance. The tepid bath every second or third day, followed in adults by the flesh-brush. Dover's powder at bed-time is sometimes very useful, and tartar emetic is so likewise. The diet should be low during the acute stage, rather generous in the chronic. The head should be raised as much as possible, and the child ought not to be allowed to lie burying its face in the pillow.

Local Remedies. A broad green shade should be worn over the forehead, but the patient may go abroad in fine weather. A handkerchief bound over the eye is decidedly injurious, heating it and adding to the intolerance of light. In recent and slight attacks evaporating and slightly astringent lotions, applied tepid or cold according to the feelings of the patient, are very serviceable. A decoction of poppy heads with a little alkohol, a weak solution of the acetate of ammonia, a little rose water, or a solution of one grain of the oxymuriate in eight ounces of water, answer the purpose. Cold water generally gives relief, but the subsequent re-action is injurious, and the same may be said of alum, curd, &c. When the symptoms are at all severe, fomentations afford relief. Exposure of the eyes to the vapour of laudanum or camphor, raised by means of a cupful of hot water is of service. Warm bread poultices, without milk, are useful during the night. Scarification is very valuable in chronic cases. In the vascular speck, division of the fasciculus of vessels running over the sclerotica to the albugo cannot be dispensed with. Blistering is very useful, the intolerance of light being often suddenly relieved by it. The discharge should generally be kept up by some stimulating dressing, or a quick succession of them ought to be applied. Our author prefers blistering to friction with tartar emetic ointment. Issues both in the neck and arm are serviceable.

Stimulants are decidedly useful, when well chosen, carefully used, and properly timed; if before the acute inflammatory stage has subsided they do harm. The solution of the argenti nitras and the red precipitate salve are the best, and next to them is the vinum opii. Our author generally uses four grains of the argenti nit. to the ounce of water, and whenever ulceration is present on the cornea recourse should be had to it. A stronger solution may be applied directly to the surface of the ulcer, without permitting the solution to spread over the rest of the eyes. When an ulcer threatens to penetrate deep into the substance of the cornea, or has already perforated the anterior chamber, with or without prolapsus of the iris, the ulcer, or the myocephalon should be touched every second or third day with a pencil of lunar caustic, filed to a sharp point. In central ulcer of the cornea, and even when the edge of the pupil is involved, it is highly advisable to apply the extract of belladonna. In perforating ulcer near the edge of the cornea, Mr. Mackenzie is inclined to refrain from it, for the iris cannot be sufficiently removed from the centre of the cornea, and its palsy favours, rather than prevents prolapsus. Scrofulous ophthalmia is exceedingly apt to recur, and therefore the eyes should be inspected from time to time by the medical attendant.

V. Erysipelatous Ophthalmia.

This has been described by Beer; it appears to be a rare disease.

Symptoms. "It commences with a slight feeling of tension in the eye, and parts immediately surrounding it. The conjunctiva becomes of a pale red colour; and rises in soft yellowish-red vesicles round the cornea. These take a different form from every motion of the eye-lids, and are sometimes so large as to project from between their edges. On strained or rapid motion of the eye-ball, or eye-lids, the patient feels a pricking pain in the eye. When the eye-lids are a little open, the vesicles give the patient the appearance of one who is weeping, and we expect that at every moment the tears will drop from his eye; but on a nearer inspection, and on pulling down the lower eye-lid, we discover the cause of the mistake, into which we are the more ready to fall, as during this inflammation there frequently is a discharge of tears, especially on sudden changes of temperature. The eye is somewhat impatient of light. No other diseased appearances are observed in the eye itself; but the eye-lids seem also to be more or less affected with erysipelatous inflammation. At the end of the acute stage, the pain of the whole eye is increased, still exciting in the mind of the patient the comparison of pressing or stretching, especially on moving the eye or eye-lids.

As the disease continues, the redness of the conjunctiva increases. It becomes indeed so generally red, that we discover no longer a mere net-work of blood-vessels, but a general, yet pale, and sometimes livid redness. Yet this pale red colour is not uniform. It is contrasted with spots of different sizes, of a bright red colour, which arise from extravasation of blood into the cellular substance between the conjunctiva and sclerotica. The vesicles become more considerable, and project still more from between the half-opened eye-lids. The spaces between the vesicles are covered with a thin white mucus, which is secreted in unnatural quantity by the conjunctiva and Meibomian glands. The discharge of tears is also increased. During the night the eye-lids are glued slightly together, so that it is with some difficulty that the patient opens them in the morning; when they are opened the cornea appears somewhat dim; but when the eye has been carefully cleared, we see that the apparent dimness of the cornea arises entirely from the mucus collected on its surface.

As the disease begins to subside, the secretion of mucus returns to its natural quantity, the redness of the conjunctiva gradually disappears, and those portions of that membrane which had been elevated in vesicles, re-approach, and re-attach themselves to the tunica albuginea and sclerotica. The discharge of tears ceases to be so frequent and so abundant. Those spots which arose from the extravasation of blood are the last symptoms to disappear. They become of a yellowish red colour. There continues, even for a long time, such a diminution of the connexion between the conjunctiva and sclerotica at these places, that the conjunctiva falls into wrinkles whenever the eye-ball is moved. It is long before it recovers completely its natural pliancy and pellucidness." 402.

The disease arises from sudden atmospheric changes, slight blows, stings of insects, &c. A purgative, opening the vesicles with the point of a lancet, and gentle diaphoretics are usually sufficient to effect a cure. We have never seen this affection occur idiopathically, but the conjunctiva is not unfrequently affected secondarily to erysipelas of the face. We have frequently witnessed effusion of serum in such cases between the conjunctiva and sclerotica, No particular treatment was required.

VI. VARIOLOUS OPHTHALMIA.

Variola was formerly by far the most frequent cause of partial and total staphyloma. Inoculation and vaccination have rendered its ravages more rare.

"In most cases of small-pox, pustules form on the external surface, and on the mar-

gins of the eyelids. When they are numerous, as in confluent small-pox, they cause such swellings of the lids as completely to close the eyes. As the disease proceeds, matter is discharged partly from the Meibomian follicles, partly from the variolous pustules, the eyelids are glued together so that the eyes cannot be opened for days, and merely from this state, without any pustules being formed on the conjunctiva, the eyes are irritated and painful. At last, as the disease subsides, the swelling of the lids falls so that they are again opened, and the eyes may be found uninjured. It is in this way that the vulgar talk of persons being blind in small-pox for so many days, and then perfectly recovering their sight. But although the cornea has not suffered in these cases, the eyelids and the lachrymal apparatus are often left in an injured state; and not unfrequently small-pox proves the exciting cause of strumous affections of the eyes and eyelids, which may continue troublesome for years. The small-pox pustules on the lids are apt to destroy the eyelashes, to leave red marks and scars, render the edges irregular, and liable to inflammation and excoriation from slight causes, and to produce ophthalmia tarsi, and very frequently trichiasis and distichiasis. Chronic blenorrhœa of the lachrymal sac, and pustular conjunctivitis, are also frequent sequelæ of small-pox." 403.

To moderate the eruption on the face and its effects, it has been recommended to cover the face with a cloth spread with cerate, and foment it from time to time with chamomile decoction; it can do no harm. When the pustules on the eyelids are fully matured we may evacuate them with a needle; we should carefully remove the crusts which form after the pustules burst, having first softened them with some mild ointment. The lids should be often bathed with tepid milk and water, and rags dipped in the same should be laid over them.

In every case of small-pox there is some redness of the conjunctiva, but unfortunately pustules are more apt to form upon the cornea, and being there to prove destructive. When it bursts the ulcer too often deepens and spreads, the cornea is penetrated, the iris becomes adherent, or partial or general staphyloma of the cornea ensues. In bad cases almost the whole cornea is destroyed by infiltration of matter and ulceration. During the suppurative stage of small-pox it is difficut to say what mischief is going on in the eye under the closed and swollen lids. If there be pain in the ball, with dryness, stiffness, and a sensation of sand in the eye; if the uneasiness be much increased by attempts to move the eye or exposure to light even through the lid; if there be frequent discharge of hot tears, then probably there is acute variolous conjunctivitis, perhaps pustules on the cornea. If the eye is easy and only closed from the state of the lids there is probably no danger.

But Mr. Mackenzie has seen both pustule of the cornea and onyx produced after the general eruption was completely gone. This *secondary variolous ophthalmia* sometimes occurs as late as five or six weeks after recovery from the primary disease; it is not so severe as the primary, but still dangerous to vision. A dull whitish point with surrounding haziness is observed on the cornea; the whiteness extends, perhaps to the 12th of an inch in diameter, and then the part becomes yellow; two or more such points render the whole cornea nebulous, or one large pustule may do so. An onyx may appear at the same time at the lower edge of the cornea. The sclerotica is reddened; there are pain and epiphora on exposure to light, The cornea is seldom destroyed; the matter of the onyx or pustules is sometimes absorbed. In other cases ulceration takes place, and a perma-

nent leucoma remains. The surrounding corneal haziness is gradually dispersed, and vision is impaired according to the situation and size of the leucoma. Vision may often be restored by an artificial pupil, and this operation is frequently applicable to the partial staphyloma.

Treatment. The best general treatment of small-pox must be followed. The eyes should be frequently bathed with tepid water or poppy decoction, and the edges of the lids smeared with cold cream. When the lids are too much swollen to allow of any application to the conjunctiva, leeches may be advantageously applied behind the ears or on the temples, and followed, if necessary, by blisters. About the 8th or 9th day of the eruption free purging is useful, and as the lids now begin to be opened a weak solution of the argenti nitras, or diluted vinum opii may be used as an injection. In the secondary ophthalmia, our author has found emetic tartar, given so as to vomit and purge freely, abate the inflammation, and promote the absorption of the pustules and onyx. Leeches and blisters are also useful. When the acuteness of the inflammation is abated a course of sulphate of quina is of much service; and undiluted vinum opii employed once a day is the best local application. Belladonna should be smeared on the brow, in order to keep the pupil dilated.

VII. MORBILLOUS AND SCARLATINOUS OPHTHALMIA.

A certain degree of conjunctivitis always attends measles and scarlet fever, but it is not usually severe. Occasionally, we have phlyctenulæ, onyx, and ulcers of the cornea, particularly when the patient is scrofulous. By the dregs of the measles or scarlet fever affecting the eyes we may generally understand, that a scrofulous diathesis has been called into action, and that ophthalmia tarsi, or phlyctenular conjunctivitis has been the result. In measles there is catarrhal inflammation of the Schneiderian membrane, and occasionally the attending conjunctivitis is rather blennorrhœal than eruptive. Our author has seen cases in which the eye had been destroyed by severe puro-mucous ophthalmia, excited by measles. In some rare cases of scarlatinous ophthalmia, the iris and capsule of the lens become affected. Our author operated on a boy, in whom specks of the anterior hemisphere of the capsule were brought on in this way.

Treatment. It is seldom required to be active. The eyes should be guarded from strong light, bathed occasionally with tepid water, and the bowels should be kept freely open. If the symptoms are unusually severe, leeches to the temples, and blisters behind the ears, or to the nape of the neck. The argenti nitras solution is highly useful, whether the ophthalmia be eruptive or puro-mucous. Sulphate of quina internally is highly beneficial.

The length to which this article has already extended would render it advisable to conclude here. But only the rheumatic and the catarrho-rheumatic ophthalmiæ remain to be considered, previous to entering on the subject of iritis, and inflammation of the deeper structures of the eye. We are therefore unwilling to leave the present paper thus unfinished, and abandon the consideration of the conjunctival inflammations, without adverting to those rheumatic affections of the sclerotica and conjunctiva, which claim such near relationship to them. We pray the indulgence of our readers, and shall endeavour to be as brief as perspicuity will permit.

VIII. Rheumatic Ophthalmia.

This differs in the following particulars from the catarrhal ophthalmia, although both have had their origin in atmospheric influences. It has its seat in the albuginea and sclerotica, and extends occasionally to the iris—the chief redness is radiated, or zonular, and seated under the conjunctiva—attacking the fibrous membranes, it is unattended by any morbid secretion from the surface of the eye—the pain is pulsative and deep-seated, not so much in the eye as in the brow, temple, cheek, and side of the nose, and it is severely aggravated from sun-rise to sun-set.

By "rheumatic ophthalmia" Mr. Mackenzie does not wish to imply any rheumatic diathesis, but simply inflammation of the fibrous tissue of the eye, and of the surrounding parts resembling it, excited by exposure to cold. He has always seen it primary, and never metastatic. It resembles rheumatism, but has not been generally recognised as rheumatic. It is comparatively a rare disease. When both eyes are attacked, one is always more severely inflamed than the other.

Symptoms. The fasciculi of sclerotic vessels are of bright red colour, and advance in radii towards the edge, sometimes even a little over the edge of the cornea. The conjunctivitis is slight, there is usually no tendency to chemosis, nor do the eyelids take part in the disease. There is uniformly dimness of vision, depending on haziness of the cornea and pupil, attended by slight contraction of the latter and sluggishness of the iris. The latter becomes even slightly discoloured, greenish for instance, if naturally blue, and coagulable lymph may even be effused within the pupil. But severe iritis rarely attends this rheumatic sclerotitis. Mr. Mackenzie has never seen any form of suppuration or ulceration in the disease. The access of light is not generally distressing; the eye feels hot and dry in the early period of the disease, but after a time, especially if the symptoms are abated by blood-letting, there is considerable epiphora. The pain is at first of a stinging kind, and extends from the eyeball to the orbit and neighbouring parts of the head, which feel hot to the hand.

"The pain is strikingly augmented by warmth. It often affects the forehead, the cheek-bone, and the teeth; extending sometimes even to the lower jaw. Occasionally, it is precisely confined to one half of the head. In some instances, it is severe on the side, or even in the cavity of the nose, or in the ear. But, above all, the eyebrow is its chief seat, and next to it the temple and the cheek. It is not unfrequently the acute pulsatory pain of phlegmon, especially when felt chiefly in the eyeball; in other cases, and particularly around the orbit, it consists rather in an agonizing kind of feeling, which distresses and wearies out the patience of the person affected. It never ceases entirely, so long as the disease continues; but it varies much in degree, coming on with severity about four, six, or eight o'clock in the evening, continuing during the night, becoming more severe about midnight, and abating towards five or six in the morning; till then totally preventing sleep, and occasioning great distress. The patient never fails, in the history he gives of his case, to insist on the nocturnal pain, and with his finger to point out its circumorbital seat. It is much more in the forehead, temple, cheek, and side of the nose, than in the eye. It is reasonable to conclude that in this disease the periosteum in and round the orbit, and the fascia of the temporal muscle (structures similar to the sclerotica), are also affected with rheumatism; but the chief seats of the pain are, in all probability,

the branches of the fifth pair of nerves distributed to the face, and we may fairly attribute a considerable portion of the pain to the sympathy which these nerves have with those belonging to the eyeball." 409.

A considerable degree of fever attends the disease, increasing with the nocturnal paroxysms of pain. In some the attack is slight, and soon goes off, without permanently injuring the eye. In others it is extremely severe, and if misunderstood, may speedily destroy vision. Not unfrequently the disease becomes chronic, without being very severe.

Exciting Causes. The most frequent cause is exposure of the eye to a continued blast of cold air, while the head and face are in a state of perspiration. Of such a nature is travelling during the night, with one side of the head close to the broken window of a carriage, and so forth. It does not seem more apt to occur at one season of the year than another. It is more prevalent when the wind is cold and north-easterly, and attacks people of middle age more than either the young or the old. Probably the causes which excite it, would give rise to strumous ophthalmia in the young, to catarrho-rheumatic ophthalmia in the old. Persons who have once suffered from it are disposed to suffer again.

Treatment. Bleeding from the arm is necessary in almost all cases of rheumatic ophthalmia. On this point our author's experience is totally at variance with that of Mr. Wardrop, who maintains the contrary opinion. After the bleeding, Mr. Mackenzie is in the habit of applying next day a dozen leeches round the eye, first repeating the venesection if the pulse be strong and full, and the circumorbital pain not relieved. Calomel and opium are highly useful. Two grains of the former and one of the latter should be given every evening till the gums begin to be affected, when the calomel may be omitted, and ten grains of Dover's powder substituted for the opium. Here again our author's experience differs from that of Mr. Wardrop. An hour before the nocturnal paroxysm of pain is expected, warm laudanum, or equal parts of laudanum and cantharides, rubbed upon the forehead and temple, may lessen or prevent the pain. Blisters repeatedly applied behind the ear and temple, but especially to the nucha, are of service. During the whole course of the disease the pupil should be kept under the influence of belladonna. A laxative glyster every morning, or a small dose of Epsom salts may be exhibited. A stronger purge will carry off the calomel and opium. The warm pediluvium at bed time, with warm diluent drinks towards evening, will generally excite sufficient diaphoresis. In the chronic stage and during convalescence small doses of sulphate of quina, or of the mineral acids will be advantageous. In old mistreated cases, from eight to twelve drops of Fowler's solution sometimes succeeds well. Local applications are of little service. The lunar caustic solution, and things of that class, so beneficial in the other ophthalmiæ, are highly injurious in this. But when little more than a lingering redness, with weakness of the eye, remains, the vinum opii diluted may be dropped upon the eye twice or thrice, or the pure vinum opii once daily. When the plan now explained has been adopted with necessary vigour, Mr. Mackenzie has never seen any permanent sequelæ left by the disease. So much for the rheumatic ophthalmia.

IX. Catarrho-Rheumatic Ophthalmia.

This is one of the most common, and one of the most severe and dangerous ophthalmiæ. In old persons it often occasions entire loss of sight, often permanently diminished vision.

Symptoms. They are, of course, more complicated than unmixed conjunctivitis or sclerotitis. There is the feeling of roughness or sand between the eye-lids and eye-ball, the secretion of puriform mucus and puriform Meibomian fluid; and there is the nocturnal paroxysm of racking circumorbital pain. Sometimes the conjunctivitis is severe, the scleroticus slight, more frequently the contrary. The conjunctiva and sclerotica are simultaneously attacked, in consequence of the influence of one and the same cause. The redness is evidently both conjunctival and sclerotic; under the moveable net-work of the conjunctiva we perceive the immoveable zonular inflammation of the sclerotica. Chemosis is by no means uncommon, and hides from view the sclerotic redness. The conjunctival discharge is never profuse, and seldom opaque, being generally a mere increase of mucus, rendering the lids unusually moist and slippery. The eye-lids adhere together in the morning from the inspissated Meibomian secretion, and they are often externally red and swollen. There is considerable intolerance of light and epiphora, especially where the structure of the cornea is affected. The conjunctival pain is felt most in the morning, or when the eyelids are moved; is referred to the surface of the eye, and sometimes to the forehead. The sclerotic pain is nocturnal, as in rheumatic ophthalmia, and circumorbital.

The cornea is extremely liable to ulceration, and to effusion of pus between its lamellæ, or onyx. If the disease has been neglected for eight or ten days, one or the other is constantly met with.

"The ulcer is peculiar. It spreads over the surface, rarely penetrating deeply into the substance of the cornea. It generally cicatrises without leaving any opaque speck, the cornea remaining merely irregular, as if part of it had been hacked off with the lancet; and of course vision, from imperfect refraction, is indistinct. Professor Beer and Mr. Wardrop have described this kind of ulcer as attendant on pure rheumatic ophthalmia, but I have never seen it except in catarrho-rheumatic cases. Professor Beer mentions that it originates in a phlyctenula, but I have never had an opportunity of seeing any appearance of this kind. If the case continues to be neglected, or if it be mistreated, this ulcer ceases to be superficial; the substance of the cornea is more deeply attacked, and an opaque leucoma will be the result.

Onyx, or effusion of pus between the lamellæ of the cornea, is the most alarming of all the symptoms of this ophthalmia. It generally commences at the lower edge of the cornea, in shape like the white spot at the root of the nails, convex on its upper edge, gradually increasing, mounting upwards, separating more and more the lamellæ between which it is effused, and greatly adding to the sufferings of the patient. It reaches not unfrequently to such a height as to implicate more than half of the cornea. The pus of an onyx in catarrho-rheumatic ophthalmia is very rarely absorbed. The cornea becomes ulcerated over the centre of the onyx; the pus is evacuated; the ulcer but too often penetrates through the posterior lamellæ of the cornea; the aqueous humour escapes; the iris falls forward into contact with the ulcerated cornea; in nine cases out of ten these parts adhere together, and the result is partial or total staphyloma." 414.

As the onyx advances, lymph is commonly effused into the pupil, which

becomes sluggish, then hazy, contracts, and may at last be obliterated. Sometimes the onyx is accompanied by hypopium, or effusion of pus into the anterior chamber. At other times the onyx bursts first into the anterior chamber, false hypopium is produced, and ultimately the cornea gives way. If even the onyx is absorbed, albugo remains for a considerable time, but gradually diminishes, and at last may also disappear. If the onyx is dispersed by the cornea giving way, leucoma is the result, and never entirely disappears. Unless the iris and cornea have become partially or generally adherent staphyloma cannot exist; it is generally at the inferior half of the cornea, because it is commonly the consequence of onyx, which mostly takes place at the lower edge of the cornea. The pulse is generally quick and sharp, and catarrh sometimes adds to the febrile symptoms. The rheumatic symptoms generally yield to treatment first, the catarrhal remaining for some days afterwards. Sometimes our author has observed the reverse.

Causes. It may be traced to the same atmospheric influences, which have already been enumerated, as giving rise to catarrhal and rheumatic ophthalmiæ, and it is mostly prevalent during North-easterly winds. Beer thought it was a mixture of foul air and cold air that occasioned the disease. It is probable that the discharge from an eye thus affected, will, if applied, to the conjunctiva of a healthy eye, occasion a puro-mucous conjunctivitis. Beer mentions that catarrho-rheumatic ophthalmia sometimes occurs in children, and still oftener in old persons, along with suppression of urine; nor does he regard it as an accidental coincidence. The disease is much more frequent in the old than in the young or middle-aged.

Treatment. Judgment and selection, and not new remedies, are required. Venesection is required, must be active according to the severity of the case and age of the patient, and must be repeated next day, if the symptoms are not greatly relieved. Leeches to the temple are highly useful, especially soon after venesection. Scarification of the palpebral conjunctiva is to be employed when there is any considerable chemosis. Calomel and opium should be administered as in the pure rheumatic ophthalmia. Opiate frictions an hour before the expected paroxysm of circumorbital pain, belladonna, blisters, and purgatives, are all useful; so are sudorifics, and tonics in the chronic stage of the disease. The solution of the argenti nitras speedily relieves the symptoms of conjunctivitis, but has no effect on the sclerotic part of the disease; and our author would be very sorry to trust almost wholly to this remedy. The eye is to be bathed four or five times daily with the tepid murias hydrargyri lotion, one grain to eight ounces, and the red precipitate ointment is to be smeared over the edges of the tarsi at bed-time. In onyx our author does not advise the evacuation of the pus by the lancet, as, where he has done it, partial or general staphyloma has resulted. When he has left the onyx to itself, the case has sometimes recovered astonishingly well. This he attributes to the sorbefacient influence of the calomel over the lymphatic effusion into the pupil which always attends extensive onyx; to the continued use of belladonna; and to the gradual preparation of the cornea by Nature for its giving way, a preparation which must be entirely defeated when we venture to open the onyx with the knife.

X. Scrofulous Corneitis.

The cornea is liable to suffer in any of the ophthalmiæ already considered, and in others not yet treated of. But the present disease is essentially different from every other. It appears to be chiefly in the conjunctival layer of the cornea, and the substance immediately beneath that layer.

Symptoms. The redness is principally in the sclerotica, and on the surface of the cornea. The sclerotic redness is not usually considerable, of a carmine colour, approaching to purplish, the vessels very minute, and arranged zonularly round the cornea. Not unfrequently there is a reddish ring somewhat elevated, formed around or upon the edge of the cornea, while red vessels, more or less numerous, are traceable over its surface to its centre. In some cases the whole cornea is so covered that it assumes a red colour, and this is called a *pannus*. In chronic cases the visible arteries of the eyeball, derived from the recti muscles, are much dilated.

"The cornea is more or less opaque, and rough. The roughness frequently resembles the dotting which might be produced by touching the surface of the cornea all over with the point of a pin. In other instances, the depressions are somewhat larger, and assume, under the magnifying glass, the appearance of a crowd of minute ulcers. In every case, we find that the surface of the cornea has lost its natural polish; and from this circumstance, even when little opacity is present, the eye appears dull, and vision is indistinct. In some instances, the opacity amounts to haziness only; in others, it consists in a streaked or speckled whiteness, arising from depositions of coagulable lymph, with interstices of clear cornea. Not unfrequently the surface of the cornea becomes completely and almost uniformly white. Here and there we occasionally observe upon it elevated points of a yellowish colour, which never appear to suppurate or ulcerate." 419.

In many cases the cornea is unnaturally convex, or even conical, the aqueous humor superabundant; there is hydrophthalmia. Dilatation of the pupil is not unfrequent, nay, there is often a tendency to amaurosis. In other instances irritis, with consequent adhesions, is set up, but it is often difficult to recognize the state of the iris or pupil through the hazy or speckled cornea. Concentrating the light on the cornea, by double convex lens, is useful in such cases. There is not usually much intolerance of light, but sometimes this is great, with considerable epiphora. There is little or no pain, except perhaps in the commencement. The pulse is quick, the skin harsh and dry, the patient commonly restless at night. It is most frequent about the age of puberty, in women; often connected with amenorrhœ; and coincident with a peculiar hoarseness of voice. Other strumous symptoms are generally present. The cornea is evidently the chief seat of the disease, and *corneitis* seems the most appropriate name.

Causes. They are obscure. Our author has known it arise from exposure during the night to the glare of flambeaux. Cold is probably an operative agent.

Treatment. Leeches to the neighbourhood of the eye are very useful, especially in the commencement, or when there is pain or tension in the eye or across the forehead. They ought to be repeated with caution, from time to time. Emetics and purgatives are useful, and the tartar emetic is particularly so, in doses of from the 12th to the 4th of a grain thrice a day,

and along with Peruvian bark. Diaphoretics are indicated: the pediluvium and Dover's powder. Mercury carried so far as to affect the mouth, is of great service.

"It is not to be commenced, however, in general, till the acute symptoms have been removed by depletion of different kinds, and the employment of tartar emetic in small doses. When the mercury begins to act decidedly on the constitution, we generally find that the enlarged vessels on the cornea contract, and the newly deposited matter becomes absorbed. The clearing of the cornea commences around its circumference, the favourable change gradually advancing towards the centre. The best form, in which to administer mercury in this, as in some of the former ophthalmiæ, is calomel with opium. Mercury is peculiarly necessary in those cases which are attended with iritis, and in them ought to be employed from the first." 420.

The sulphate of quina exerts a gradual but very beneficial influence on the disease. Colchicum, sarsaparilla, and elm bark are useful remedies, but inferior to cinchona and quina. In this, as in other things, the practitioner having made choice of a remedy must not rashly and hastily abandon it. Many cases are under treatment for a whole year or even longer, before they perfectly recover. And now for the local means of cure. Warm poppy fomentations, and exposure of the eye to the vapour of hot water and laudanum, give great relief where the presence of light proves irritating. Blisters and issues on the neck, behind the ear, and on the temple, are useful and generally necessary. Stimulants are admissible only after acute inflammation is subdued. Next to vinum opii our author would place the red precipitate salve; about the bulk of a split pea being introduced daily between the lids and eyeball, and then carefully rubbed upon the surface of the cornea through the medium of the upper lid. From 3ss. to 3i. of red precipitate, triturated along with an ounce of white sugar into an impalpable powder, and blown into the eye through a quill, is another method of applying the same substance. The lunar caustic solution, and an injection of four grains of sulphate of zinc in an ounce of water, are useful also. It is a good plan to employ one stimulant in the morning and another at bed-time. Belladonna should be used at bed-time when there are symptoms, or even only a suspicion, of inflammation of the iris. Evacuation of the aqueous humour appears to be indicated in those cases in which there is a tendency to hydrophthalmia.

Here we must lay aside our pen, for although the inflammations of the iris, choroid, retina, lens and its capsule, and hyaloid membrane, which our author treats of next, have no natural disjunction from the subjects already discussed, yet something like a break does really exist, and of that our limits compel us to take advantage. If we have very closely adhered to the plan of analysis, and avoided criticism, it is not altogether that we had no observations to offer, but because we wished to put our readers in possession of Mr. Mackenzie's practice and opinions rather than those of ourselves or others. Laws are, or should be, for the many, and so are periodical publications. The literary few may be tired of any thing save keen remark and tranchant criticism. But of what utility are such to the million? The country surgeon unable to purchase the expensive books which are daily poured from the press, and yet unwilling to remain behind more fortunate compeers, in the knowledge of the day, naturally resorts for useful informa-

tion to those publications which purport to be its vehicles, we mean the medical journals. It may be more amusing to peruse a sharp cutting little article, but we venture to doubt whether learning of this kind will enable him to get a patient or to keep one. We have always endeavoured to embody in this journal the greatest possible quantity of useful facts in a very moderate space. Much of what is already known must necessarily be repeated, for if novelty only was selected, we could not fill twenty pages in a year, and if so filled, they would probably not be worth reading. We write, we repeat, for the body of the profession, and if we are the means of conveying practical information to those who would otherwise remain without it, the true objects of journal and journalists are then attained.

It is hardly necessary to pronounce a critical judgment on Mr. Mackenzie's work. We have no doubt that it will become the class-book of all who take an interest in the diseases of the eye, for it forms almost a library in itself. It is in fact too voluminous, and many points are treated of in a prolix and methodical manner which scarcely required notice. The ophthalmic surgeon will hardly wade through the whole book, nor was it intended that he should do so. The work is for the student, young or old, and to the student we recommend it. But let not our meaning be misunderstood. We do not recommend this Treatise to the student only, for we believe that many men who are conversant with the department of surgery of which it treats, may very beneficially scan its pages. On the whole then we can pronounce a very favourable opinion of the book, and we think we can assure Mr. Mackenzie of the author's highest heaven, an extensive sale.

XV.

The Life of Sir Humphry Davy, Bart. By *Dr. Paris*, Quarto, 1831.

The desire to become acquainted with the habits and peculiarities—in short, with the private life of all those who have attracted public attention by their genius or their discoveries, is almost universal—and hence it is that biography is a species of literature that is eagerly sought after, and greedily devoured. Sir Humphry Davy has excited as much sensation in the scientific world as Lord Byron did in the poetical;—and as Dr. Paris is fully as well calculated to pourtray the life of the one, as Mr. Moore is that of the other, the work at the head of this article will have a wide circulation, and will gratify the curiosity of a large circle of readers. It is hardly to be expected, however, that the perusal of this splended volume will afford unmixed and universal delight. No man ever rose to the pinnacle of fame, even in the most useful sciences, without drawing upon himself the envy, or even the hatred of some of his contemporaries. The enemies of the illustrious dead will not relish the praise which may be justly accorded to their departed rival; while the ardent friends or idolators of the deceased, will be displeased with the slightest censure, or even with "faint praise."

The biographer, therefore, of an illustrious character so recently recalled from the stage of life, has a difficult task to fulfil, and can scarcely hope to please all parties. Honesty in this, as in every thing else, is the best policy; and we have no doubt that Dr. Paris laboured with equal zeal and candour, in the construction of the present biography;—we may add, too, with unexampled industry, considering that the compilation of the work was stolen from the hours of accustomed repose, and after the daily toils of a laborious profession were over.

As the costly quarto commemorating the life and discoveries of Sir Humphry Davy cannot circulate through the minute ramifications of our poor profession, we shall endeavour to give such a connected, but condensed view of the former (life) as may gratify, though not entirely satisfy curiosity; reserving for one or two separate articles, some account of the valuable scientific information with which Dr. Paris has enriched the biography of his friend.

Sir H. Davy was born in Penzance on the 17th December, 1778, of parents who could not boast of any very ancient or distinguished pedigree. His father was originally a carver in wood; but having come into the possession of some little patrimony, he followed this avocation rather as an amusement than as a source of emolument. He was not remarkable for any superior powers of intellect. The son, whose life we are commemorating, being placed at a preparatory seminary, made rapid progress, and excited the astonishment of the master. He was remarkable for the rapidity with which he could skim over a book, and yet be able to give a very good account of it; such was the quickness of his perception and the tenacity of his memory. The "Pilgrim's Progress" was the work which attracted most the attention of the young philosopher. He next studied history, and became a great lover of the marvellous, amusing himself and his schoolfellows with the composition as well as the recital of tales of wonder. He became early fond of fishing and shooting, as well as some chemical experiments, such as the composition of detonating powder, &c. He went to Truro, in 1793, to finish his education, and here he evinced quickness and industry in his school exercises. The next year witnessed the death of his father, and Master Humphry was put apprentice to Mr. Borlasse, a surgeon-apothecary, his mother being engaged in the business of a milliner. In this new situation he still pursued his favourite pursuits—poetry, painting, philosophy—any thing rather than the compounding of physick. During his apprenticeship he attended a French emigrant priest to take lessons in that language; but never could acquire any thing like a good pronunciation of the French tongue. For the surgical part of the profession, he always evinced a decided distaste; but soon shewed his propensity for chemistry, often amusing himself with blowing up his master's bottles, as well as the rocks in his neighbourhood. Like Demosthenes, he had a defective utterance; and, like that orator, declaimed to the winds and waves on the rugged shore of his native coast. He had a remarkably bad ear, and never could learn even the tune of "GOD SAVE THE KING." He became a militia-man, at an early period, but never could emerge from the awkward squad, so backward was he in the acquisition of military tactics. Nevertheless he was not defective in courage or decision. Being bitten by a dog

that was supposed to be mad, he took out his pen-knife, and cut away the part bitten without hesitation.

It was, no doubt, the nature and the scenery of the country around him, which directed his attention to chemistry and geology—since no one, now-a-days, believes that any "ruling passion" is ever an innate or irresistible propensity, antecedent to reason and observation. The prevailing bias of great minds may often be traced to some accidental, or even trivial circumstance, in early life. At the age of 12 years, Davy had finished an epic poem, entitled the Tydidead, celebrating the adventures of Diomede on his return from the Trojan war. No trace of this remains. Poetry and Love are nearly allied; and, at the age of 17, we find Davy desperately in love with a French lady at Penzance, to whom he addressed numerous love ditties, none of which have descended to posterity. It was in early life that our philosoper and poet contributed to the "ANNUAL ANTHOLOGY," a work published at Bristol, in 1799, several compositions, which are reprinted in the present volume. They shew that the "bright and rosy hues of fancy," as Dr. Paris expresses it, were early cherished by Mr. Davy, and shone out even at the close of life, as we have seen in his "Consolations of Travel," already noticed in this Journal.

But we must pass over these juvenile effusions of his muse, to things of greater utility. The first chemical experiment of our hero, appears to have been performed for the purpose of discovering the quality of the air contained in the bladders of sea-weed. Mr. Davy's apparatus was very confined, as well as very clumsy; but a French vessel being cast ashore near Penzance, a glyster syringe escaped the waves, and was soon converted by the young chemist, for so we may now call him, into an air-pump, and even a pneumatic machine! This poverty of materials at the beginning conduced very much, in all probability, to Davy's fame in after life. Necessity is the mother of invention, and the great whet-stone of the human intellect. The subject of heat attracted much of the young philosopher's attention, and he devised a very ingenious apparatus, all things considered, for disproving the doctrine of Black, as to the materiality of caloric.

It was about this time that he was introduced to Mr. Giddy, now Mr. Gilbert—a circumstance on which much of his future prospects hinged. Mr. G. gave him the use of his library—introduced him to Mr. Edwards, a chemical philosopher, whose laboratory nearly threw young Davy into ecstatics. The late Mr. Gregory Watt, having gone to Penzance for his health, lodged in the house of Davy's mother, and here an intimacy commenced between the two, which proved another important link in the chain of the philosopher's life.

The geological warfare between the Neptunists and Plutonists, raged fiercely at this time, and Beddoes was a distinguished general in the Plutonic ranks. He wanted an assistant in his "Pneumatic Institution," at Bristol, and, in October 1798, Davy was the successful candidate. But in closing with Dr. Beddoes Mr. D. did not intend to give up the medical profession. Of his studies and experiments with the gases, the acids, and the metals, at Bristol, we cannot give any detail. It is evident that here the sphere of his chemical researches, and the ardour for chemical experiment were rapidly and greatly widened.

In the year 1801, through the negociation of Count Rumford with

Mr. Underwood, Mr. Davy was engaged in the Royal Institution of London, which was destined to prove the great theatre as well as the instrument of his future fame. He commenced as assistant lecturer in chemistry, director of the laboratory, and assistant-editor of the journals of the Institution. He was allowed a salary of 100 guineas per annum, with a room, coals, and candles. He took possession of his new birth on the 11th of March, 1801. The first impression produced on Count Rumford by Davy's appearance, was extremely unfavourable, and the Count expressed to Mr. Underwood his great regret at having been an agent in the young philosopher's appointment. Davy's first lecture, however, removed all prejudice, and at its conclusion the Count expressed the highest degree of satisfaction.

Davy's uncouth appearance and address subjected him to many other mortifications, on his first residence in Modern Babylon. Johnson, the publisher, was then in the habit of giving weekly dinners to the choice spirits of the age, and Davy was invited to one of them. The host, however, thought it necessary to apologize to his polished guests, for the introduction of a visitor whose person was so forbidding, and whose pretensions were so humble. Fuseli was present, and highly energetic upon various passages of beauty in the poets; when Davy unfortunately observed that there were passages in Milton which he could never understand. "Very ikely," said Fuseli, "but I am sure that is not Milton's fault."

In April of the above year Davy was elected one of the members of a society called the "TEPIDARIAN SOCIETY," consisting of 25 of the most violent Republicans of the day. Their meetings were held at the OLD SLAUGHTER'S, in St. Martin's Lane, and nothing but tea was allowed. Through the influence of this society Davy acquired considerable popularity. Meanwhile he performed his duties at the Royal Institution to the satisfaction of the managers, who soon appointed him lecturer, instead of *assistant*-lecturer. It appears that at this early period, Davy evinced that strong gastronomic propensity, which, in after years, displayed itself in a wider range of operations. At this time, also, he betrayed a tincture of *spinonism*, and he composed a poem under this name, since published with alterations and emendations by Miss Johanna Baillie. It is here re-published, but we pass it over. It was not till January 1802, that Davy's splendid career commenced. He then delivered a lecture to a large and enlightened audience, containing a masterly view of the benefits to be derived from the various branches of science. He represented the chemist as the ruler of all the elements that surround us, and which he employs either for the satisfaction of his wants or the gratification of his wishes. He describes the chemist as penetrating into the bowels of the earth, and searching the depths of the ocean, for the purpose of allaying the restlessness of his desires, or of extending the boundaries of his power. This lecture produced a great sensation in the audience, and it was printed at their request. He was now courted by eminent characters, and the manners and habits of the young philosopher soon underwent a considerable change! The fact is—Davy was not perfection! His vanity was excited, and his ambition raised by such extraordinary demonstrations of applause. The bloom of his simplicity was tarnished by the breath of flattery—and throwing off the native frankness, which constituted the great charm of his char-

racter, he assumed the garb and airs of a man of fashion! It need hardly be wondered at, if this new and inappropriate robe did not always fall in graceful draperies! Still the charms of the saloon never allured him from the pursuits of the laboratory. The crowds that daily attended his lectures were always gratified by newly-devised and highly illustrative experiments, conducted with great address, and explained in eloquent language.

There were some malecontent, however, or perhaps jealous spectators of this scene of success. His style was represented as too florid and imaginative, filled with inappropriate imagery, where violent conceits often usurped the place of philosophical definitions. This was Bœotian criticism; and the attic spirits selected other points of attack. They rallied him on the ground of affectation and mawkish sensibility. Dr. Paris has properly defended the philosopher from this charge, on the score of the mixed, and often unscientific audience to which the lectures were addressed. In popular lectures, the *manner* is often of greater power in attracting attention than the *matter*, and the decorations of language may well be pardoned, where the ultimate effect is beneficial. The same argument, indeed, might be fairly urged in published compositions. Many an excellent and useful work is neglected by the slovenliness and uncouthness of the language. Mr. Davy's audience were composed of the gay and the idle, who could only be tempted to admit instruction by the prospect of receiving pleasure. "They were children, who could only be tempted to swallow the salutary draught by the honey around the rim of the cup." The late Dr. Young, whose profound knowledge will not be questioned, soon lost his audience by the dryness of his style, and was dismissed from the Institution, lest it should become entirely deserted. In the laboratory, while carrying on his operations, he was as slovenly and desultory as the most rigid censor of his florid style in the lecture-room could desire.

From the exhaustion of metropolitan drudgery and scientific research, we find Mr. Davy in the year 1802, making an autumnal excursion through Wales. In letters now published we observe the enthusiasm with which the philosopher enjoyed and described the beauties and the grandeur of Nature. From the summit of Arran Benlynn, a mountain only inferior to Snowdon and Cader Idris, the philosopher beheld a scene of sublimity that excited his romantic imagination to the utmost stretch, and, no doubt, laid the foundation for excursions of wider range, and among Alpine and Apennine scenes of still greater majesty than Cambria can boast.

Returning to Modern Babylon, we are informed by his biographer, that Davy's life flowed on like a pure stream—not a gust ruffled its surface—not a cloud obscured its brightness. "In the morning he was the sage interpreter of Nature's laws; in the evening he sparkled in the galaxy of fashion." With wonderful facility he could accommodate himself to these opposite conditions of human life, readily casting aside the cares of study, and entering into the frivolous amusements of society. In closing the door of his laboratory, Davy opened the temple of pleasure—playing at billiards, frequenting the theatre, or reading the last new novel. "In ordinary cases (says his eloquent biographer), the genius of evening dissipation is an arrant Penelope; but Davy, on returning to his morning labours, never found that the thread had been unspun during the interruption. We do not quite coincide with Dr. Paris on this point. We believe the most intense

studies are rather forwarded than retarded by hours of amusement or even of dissipation. If the strings of a harp are kept too long or too tightly braced up they will crack—and so it is with the human intellect:—if intervals of relaxation are not indulged, it will be soon worn out, or rendered unequal to vigorous exertion.

We must here pass over two chapters in Dr. Paris's work and Mr. Davy's life, chiefly occupied with the history of the philosopher's discoveries in chemistry at the Royal Institution, and come to the seventh chapter, when we find Mr. Davy gaining the prize offered by Napoleon for the best essay on the galvanic fluid, or rather of electric researches. We all remember the bitter animosity which France and England mutually entertained towards each other in the year 1807; and we cannot but be gratified and astonished when we find that, in spite of national prejudice and national vanity, the Bakerian Lecture of Mr. Davy made such an impression on the savans of Paris, that it was crowned with the prize of the First Consul! "Thus did the voltaic battery, in the hands of the English chemist, achieve what all the artillery of Britain could never have produced—*a spontaneous and willing homage to British superiority!*" This award was highly creditable to the French nation, and shews that "the commonwealth of science is of no party, and of no nation—that it is a pure REPUBLIC, and always at peace."

The Bakerian Lecture for 1807, was attended by a crowded audience, and it would appear that the lecturer was kept so long in a state of excitement, that exhaustion and fever ensued, ending in a serious illness that caused an awful pause in his researches, broke the thread of his pursuits, and turned his thoughts into new channels of reflection. He always laboured under an impression that this fever resulted from contagion, to which he was exposed in one of the jails while making some experiments on fumigation. His medical attendants did not think there was any foundation for this opinion. The intellectual exertions of the philosopher were of the most intense kind at this time, and his mode of living by no means regular—perhaps not the most temperate. The greatest of all his wants was TIME—for he would not, like many men of science, give up the pleasures of the table. He was therefore obliged to work with redoubled ardour to make up for the time spent in company.

Having recovered from a long and severe illness (brain fever) Mr. Davy is presented to us in his character of an angler, with his green suit, many-pocketted coat, fishing tackle of various kinds, and coal-heaver's hat, &c. His shooting attire was equally whimsical, but he entertained a great and unnecessary dread of becoming game for some neighbour's gun, and therefore dressed himself in attire that would be sure to be seen and recognised at any distance. With all his science Mr. Davy does not appear to have been more successful in angling and shooting than other people.

In the year 1808 we find him delivering the Bakerian Lecture—and then prosecuting various chemical researches. In 1811, he delivers lectures in Dublin, and in the same year we find him directing his attention to the ventilation of the House of Lords. This undertaking proved a complete failure, which was a source of great mortification to the philosopher and pleasure to the wits of the day. Nevertheless the scientific renown of the philosopher had reached the ears of royalty, and the Prince Regent conferred on Mr. Davy the honour of Knighthood, in April, 1812. On the next day

he delivered his farewell lecture at the Royal Institution, being now about to assume a new station in society. Other views of ambition than those of science opened upon his mind—the wealth he was about to command was to elevate him in the scale of society—his feelings became more aristocratic —he discovered charms in rank and titles which had before escaped his notice—and he no longer viewed patrician distinctions with philosophic indifference. How far this revolution contributed, or was likely to contribute to an increase of his happiness, we shall not say ; though he must be void of all reflection who can fail to form an opinion on the subject. In April (an ominous month) 1812, Sir Humphry married Mrs. Apreece, the widow of S. A. Apreece, Esq. the daughter and heiress of Charles Kerr, Esq. of Kelso, and possessing a very considerable fortune. The happy pair made a tour through Scotland, and were every where greeted with the most flattering attentions.

Some time previously Sir Humphry had entered into a kind of partnership with Mr. Children and Mr. Burton in a gunpowder manufactory, and the correspondence between these partners or company occupies some space in the volume before us, but these we pass over. The ninth chapter of the volume is taken up with various chemical discoveries of the philosopher, and with his work on agricultural chemistry. These we also pass by untouched. In the year 1813, Mr. Faraday introduced himself to Sir Humphry, having taken a great liking to chemical science in preference to the business of bookselling to which he was apprenticed. Sir H. appointed him as assistant in the laboratory, and in October, 1813, took Mr. F. with him abroad, as his assistant and amanuensis.

Napoleon having granted a passport to Sir Humphry and suite to go to France, and ultimately to Italy, the party landed at Morlaix, and were instantly arrested by the authorities of the place, who could not believe that their passports were genuine. They were soon set at liberty, however, and proceeded to Paris, where Sir H. found his old friend Mr. Underwood, one of the détenus. Mr. U. conducted Sir Humphry to the Louvre, through the galleries of which the philosopher paced, without ever directing his attention to a single painting on either side! The only exclamation he uttered was—" what an extraordinary collection of fine frames" ! Mr. U. forced his attention to Raphael's picture of the transfiguration. Davy's reply was still laconic—" I am glad I have seen it," and passed on. The statues in the lower apartments of the Louvre excited no remark or attention from the philosopher! " while the marble glowed with more than human passion, the living man was colder than stone." He betrayed the most complete apathy and indifferenee when he was shewn the Belvidere Apollo, the Medicean Venus, the Laocoon ; but the sight of ANTINOUS, treated in the Egyptian style and sculptured in ALABASTER, brought forth a most enthusiastic ejaculation of vivid surprise. " Gracious powers, what a beautiful stalactyte ! " Here we have a philosopher who, with the glowing fancy of a poet, was insensible to the divine beauties of the sister arts. " Let the metaphysician," says Dr. P. "unravel the mystery if he can—the biographer has only to observe that the muses could never have danced in chorus at his birth." We suspect there was affectation at the bottom of all this. The statues of antiquity always excite vivid emotions in every mind at all imbued with classical literature, however deficient in taste for sculp-

ture, painting, or poetry. It is scarcely possible therefore that the Apollo and the Venus de Medicis could have failed to call forth emotions in Sir Humphry's breast, had he not determined to suppress them. On the following day he visited the colossal elephant, intended to form a part of the fountain then erecting on the site of the bastile, and with this he appeared to be highly delighted.

The savans of Paris hastened to pay their respects to the great English philosopher. He attended the Institute, and was placed on the right hand of the president. While there, his lady met with a curious adventure, illustrating the state of the police under the great Napoleon. She had walked into the Thuilleries garden with her maid, dressed in a small hat then worn in London, while the Parisian belles wore huge head-dresses, such as now obstruct our view in all public places. The Parisians were lost in amazement at the sight of the small bonnet, and assembled in crowds around the strange exotic. In consequence of this a police inspector warned her ladyship off, lest she should cause a "*rassemblement*," to the danger of the state! The assemblage, however, rapidly became so great that it was necessary to send for a corporal's guard, and conduct the small bonnet out of the gardens with fixed bayonets! The philosopher appears to have soon lost his popularity in Paris, principally perhaps from his own awkwardness, prejudices, not to say pride. He seems also to have incurred the displeasure of the Emperor, and we find him on his way to Lyons in December, 1813. He remained a month at Montpellier, where he employed himself in experiments on iodine and various fuci and ulvæ of the Mediterranean. In February, 1814, he proceeded to Nice—crossed the Col di Tende to Turin, and thence reached Genoa, the new and magnificent road from Nice to Genoa not then being open. From Genoa he proceeded to Florence—and from Florence to Rome, where he still pursued his chemical investigations. Naples attracted the philosopher's attention, on account of Vesuvius, the grand laboratory of Nature. Returning thence he crossed the Simplon to Geneva, where he pursued his studies for a time, and then visited the Tyrol, Venice, &c. Our philosopher returned to England by the Rhine, in 1815, and directed his attention to the *fire-damp* of our great collieries, where a dreadful explosion had then excited the sympathy of all humane persons in England. The coal appears to part with a portion of carburetted hydrogen, when newly exposed to the air. On some occasions the pit-men have opened with their picks, crevisses or fissures, in the coal or strale, which have emitted as many as seven hundred hogsheads of *fire-damp* in a minute. These *blowers*, as they are called, have been known to continue in a state of activity for many months, or even years together—shewing the tremendous pressure under which the gas must have lain! On the approach of a candle the gas is instantly kindled—the expanded fluid drives before it a roaring whirl-wind of flaming air, which tears up every thing in its progress —scorching some of the miners to a cinder, and burying others under enormous ruins shaken from the roof. When thundering to the shafts, it converts the mine, as it were, into a gigantic piece of artillery, and wastes its fury in a discharge of thick clouds of coal-dust, stones, and timber, together with the limbs and mangled bodies of men and horses! All the stoppings and trap-doors of the mines, being blown down by the violence of the concussion, and the atmospheric current being entirely excluded from the work-

ings, those miners who survive the discharge are doomed to the more painful and lingering death of suffocation by the AFTER-DAMP, as it is termed, which immediately results from the combustion, and occupies the vacuum necessarily produced by it. Here Dr. Paris introduces the relation of one of these horrible catastrophe's, as drawn up by the Rev. I. Hodgson, and which is prefixed to the funeral sermon preached on that melancholy occasion. This we must pass over. It is well calculated to harrow up the feelings, and judiciously—perhaps artfully, brought forward to enhance the value of the safety-lamp, which is next introduced to the reader's notice. We need not dwell on the mechanism and rationale of the SAFETY-LAMP, both of which are well known to all our readers. We agree with the eloquent biographer, that the invention of this lamp was one of the most splendid of Davy's triumphs. He not only disarmed fire-damp of its terrors—but enlisted it into his service in consuming itself. "He constructed a lamp, which has been truly declared to be as marvellous in its operation, as the storied lamp of Aladdin, realizing its fabled powers of conducting in safety, through fiends of combustion to the hidden treasures of the earth. We behold a power which, in its effects, seemed to emulate the violence of the volcano and the earthquake, at once restrained by an almost invisible and impalpable barrier of net-work—we behold as it were, the demon of fire taken captive by science, and ministering to the convenience of the miner, while harmlessly fluttering in an iron cage." The success of the wire-gauze lamp is now complete. It has been used for many years with entire security.

The biographer now proceeds to exhibit our philosopher in a new scene of action or field of enquiry—investigating amid the ruins of Herculaneum, the nature and effects of the volcanic eruption which overwhelmed that city in the reign of Titus—and endeavouriug to unfold the mouldering archives which had been recovered from its excavations. In his way to Italy, by the Rhine and Danube, he made numerous experiments on the formation of fogs and mists over rivers and lakes. The results of his observations are printed in the Philosophical Transactions. These results establish the law that the formation of mist on a river or lake, never takes place, if the temperature of the water be lower than that of the atmosphere—not even though the latter should be saturated with vapour. The unrolling of the Herculanean M.S. did not go on well, and was discontinued at the end of two months, when Sir Humphry returned to England, and was soon after elected President of the Royal Society, viz: on the 30th Nov. 1820. Dr. Paris discussed the question, whether a President of this learned Society should be a man of general acquaintance with all departments of science, but attached particularly to no one—or whether he should be a philosopher actively engaged in the pursuit of a particular branch of knowledge? He is inclined to favour the former, and we confess we lean to the same side. "It is not in human nature to believe that the looker-on, and he who plays the game, are alike indifferent to the cards." An influential personage in the Royal Society shrewdly remarked to Dr. Paris, on a late occasion, that they did not require an Achilles to fight their battles, but an Agamemnon to command their forces.

Be this as it may, one thing is certain—that Sir Humphry Davy retired from office under the frown of a considerable party. "As a philosopher, his

claim to admiration and respect were allowed in all their latitude; but when he sought for the homage due to patrician distinction, they were denied with indignation. How strange it is, that those whom Nature has placed above their fellow men by the godlike gift of genius, should seek from their inferiors those distinctions which are generally the rewards of Fortune." Nothing can be more clear than that Sir Humphry's weak point was vanity, which shewed itself in this pitiful hankering after patrician honours and distinctions. "We can only lament (says his biographer) the weakness from which the choisest spirits of our Nature are not exempt." Davy was no solitary instance. Congreve, in his interview with Voltaire, prided himself upon his fashion rather than upon his wit—Byron was more vain of his heraldry than of his Childe Harold—and Davy sighed for patrician distinction in the chair of Newton! Well may Dr. Paris ask—"Will philosophers never feel, with Walpole, that a genius transmits more honour by blood than he can receive?"

Dr. Paris next gives a sketch of the elaborate experimental enquiry of Sir Humphry, into the chemical nature and causes of the well-known corrosive action of sea-water upon metallic copper, with the view of obviating that serious evil in naval economy. "Paradoxical as it may appear, (says Dr. P.,) the truth of his theory was completely established by the failure of his remedy!" As we shall have occasion to recur to this subject in a separate article, we shall say no more here. In 1824 we find the philosopher visiting Heligoland, Norway, Sweden, and other places, in prosecution of the above researches; but the failure of his plan evidently produced in his mind a degree of chagrin and disappointment wholly inconsistent with the merits of the question. At this time, the philosopher's bodily health was unequivocally declining, and he began to think of secession from a public station, with the hope of finding in retirement and change of air, a restoration of that blessing, health, without which honours are of little avail! In the year 1826 he complained of debility, and that he could not hunt and shoot with the same energy as twenty years previously. On returning to London he complained to Dr. Paris of palpitation of the heart, and of an affection of the trachea, which excited fears in his mind. Towards the close of the same year, his indisposition increased—his powers were becoming undermined—his spirit oppressed—and his energies subdued. On his way from the country to town, he was seized with an apoplectic attack, from which he was rescued by prompt and copious depletion, but not without a ramaining paralysis. He was then advised change of air; and the southern part of Europe (for what reason, medicinally speaking, we know not) was selected for the restoration of his health. He therefore departed for Italy. In March 1827, we find him at Ravenna, a spot which he had chosen, as "one of solitude and repose," being out of the way of travellers, and where the monuments of ancient power are not without interest. He was accompanied by his brother, Dr. Davy, who then considered Sir Humphry as a convelescent, though he had travelled from England, and passed the Alps in the depth of Winter—a procedure which probably conduced more to his partial recovery than the air of Ravenna, situated in the midst of marshes. In a letter from Ravenna, he says, "I ride in the pine forest, which is the most magnificient in Europe. Imagine a circle of 20 miles of these great fan-shaped pines, green sunny lawns, and little knolls

of underwood, with large junipers of the Adriatic in front, and the Apennines still covered with snow behind. The pine wood partly covers the spot where the Roman fleet once rode—such is the change of time!" He now resigned the chair of the Royal Society, and Mr. D. Gilbert was elected pro tempore.

By a letter dated july 1st, at Salzberg, we find him desponding. The confident expectations of recovery indulged by his physicians had not been realized. The tendency to congestion in the head could only be kept at bay by the most rigid abstinence, vegetable diet, and frequent bleedings. Still he entertained hopes of final recovery. In October, 1827, we find him again in England, where he consulted the most celebrated writers on the nervous system, who all "had a good opinion of his case." In November he writes from Firle, near Lewes. He is very weak; but still occupying two or three hours daily in the construction of his SALMONIA, a long review of which is here given by his biographer. He proceeded to Italy; and the last letter he ever wrote, is dated Rome, February 6th, 1829. He tells his friend Mr. Poole that he was "wearing away his time" in the Eternal City, "a ruin among ruins." He says that he sometimes thinks of the lines of Waller, (we believe it was Pope,) and seems to feel their truth.

> "The soul's dark cottage batter'd and decay'd,
> Lets in new lights through chinks which time has made."

His eloquent biographer here enters into a very long analysis of the philospher's last work, "The Consolations of Travel," of which we gave an account in a late number. This analysis occupies 27 quarto pages, and, considering the smallness of the original volume, is, we think, inordinately stretched out—more especially as it must have been read by every one who peruses the biography, and by many thousands of others. We agree with Dr. Paris in the following sentiment. "In the extracts which have been introduced from this his last work, I trust the pledge that was given in the earlier part of these memoirs, has been redeemed, by shewing that a powerful imagination is not necessarily incompatible with a sound judgment—that the flowers of fancy are not always blighted by the cold realities of science—but that the poet and the philosopher may, under the auspices of a happy genius, mutually assist each other in expounding the mysteries of Nature."

The history of our philosopher draws to a close. He had been resident some months at Rome, where he occupied the second floor of a house in the *Via di Pietri*, leading out of the Corso—a house which we often paused to contemplate a few months after the philosopher left it—and where he had another paralytic seizure. Lady Davy, on this occasion, made a most rapid journey from England to Rome, namely in 12 or 13 days—a rapidity which was often the theme of wonder in the Eternal City afterwards. With that restlessness which characterises the complaint under which the philosopher laboured, he became extremely anxious to quit Rome, and to get to Geneva—a desire which does not surprise us, considering the depressing atmosphere of the city of the Cæsars, and the elastic breezes of Switzerland! His friends were naturally anxious to gratify his wishes, and Lady Davy preceded him on the journey, in order to prepare comforta-

ble apartments for her dying husband. He arrived at the COURONNE, in Geneva, on the 28th of May, accompanied by Dr. Davy, Mr. Tobin, and his servant. He made a hearty dinner, and admired the fish—was very cheerful—and joked with the waiter on the cookery. He went to bed at 11 o'clock, and his servant who slept near him, was called to him in the night, when he summoned Dr. Davy, who found him in articulo mortis. He died at three o'clock in the morning. He was buried respectfully in the cemetery of PLAM-PALAIS, where we sighed over his grave four months after his decease. A tablet in Westminster Abbey, placed there by his widow is the only public memorial, yet erected to the memory of this distinguished philosopher. We shall conclude this rapid glance of Dr. Paris's biography in the words of its author.

> The fame of such a philosopher as Davy can never be exalted by any frail memorial which man can raise. His monument is in the great temple of Nature. His chroniclers are Time and the Elements. The destructive agents which reduce to dust the storied urn, the marble statue, and the towering pyramid, were the ministers of his power, and their work of decomposition is a perpetual memorial of his intelligence."

The biographer had a difficult task to perform. Davy's life was so much connected with the history of his chemical discoveries that it was necessary to keep the one in close parallel with the other. The life of a philosopher, indeed, seldom affords materials enough, independent of his works, for the biographer. Dr. Paris has executed his task with his usual ability—and with great apparent impartiality. While he has set forth the genius and talents of the philosopher, he has not entirely drawn a veil over his failings, as our readers will have perceived.

We have heard it remarked that Dr. Paris has swelled the volume unnecessarily by private letters, and by long extracts from the published works of Sir Humphry Davy. It is difficult to discriminate on such occasions. The private letters of a man often disclose his character more than formal publications. In respect to the extracts, those from "Consolations of Travel," or the last words of a philosopher, exhibit a nearer insight into the thoughts of the author than any of his scientific productions, and their insertion in a biography is more excusable.

XVI.

A TREATISE ON PATHOLOGICAL ANATOMY. By *G. Andral*, M. D. Translated from the French, by *Richard Townsend*, M. D. and *William West*, M. D. In Two Volumes, Octavo, 1831.

IT is needless to observe that the science of pathological anatomy has been cultivated on the Continent, and especially in France, with unprecedented zeal, during the last thirty years—and by none with greater success than by M. Andral. His work is, unquestionably, the best now existing on either side of the Channel, and the translators deserve great praise as well as

encouragement for having rendered the original into their native language, by which the labours, and we may conscientiously say the treasures of Andral's work may be diffused through the British profession. The sneers which have too long and too often been cast at the indefatigable and minute unravellings of morbid anatomy on the Continent, are now rapidly subsiding—and the foolish question "*cui bono*," is now hooted out of medical society. If it be true, and we believe it is true, that French physicians pay too much attention to the *effects* of diseases, and too little to the *causes* and to the *treatment* of them, is that any reason why we should run into the opposite error, and despise *one* of the only two means which we possess of investigating the nature, and consequently of successfully treating diseases? To say that it is of no use to ascertain whether inflammation exists in the pleura, or the parenchyma of the lungs, because we must bleed, blister, and purge in both cases, is a melancholy specimen of ignorance as well as laziness:—ignorance, because the seat of inflammation must always make a difference in the mode or the amount of treatment—of laziness, or lukewarmness, because *discrimination* in the diagnosis is always gratifying to the inquiring mind—useful in practice—and highly conducive to the *habit* of accurate observation. If the ascertainment then of the actual and precise seat of a disease bore not, in the smallest degree, on the administration of physic, or the wielding of the lancet, still it would be one of the most profitable of our studies, as sharpening our intellects, clearing away our doubts, and fortifying us against the errors of diagnosis and prognosis, those *opprobria medicorum*, which are far more disgraceful than our failures in cure; because the former *knowledge* (diagnosis) is within our reach, the latter, or methodus medendi, too often beyond all human power. But we shall quit this subject, as the number of ANTI-PATHOLOGISTS, or, as they used vainly and arrogantly to designate themselves, the PURELY PRACTICAL MEN, are now vanishing before the light of science and the ardour of investigation.

There is, we believe, no man now in existence who has better opportunities, more zeal, or superior talent, for the pursuits of morbid anatomy, than M. Andral. Placed by acclamation at the head of the pathologists of the French school, he may be considered as the chosen organ of that body, and consequently as expressing the present state of the science in that country. His work, accordingly, is unrivalled in the number of original observations which it contains.* But the indefatigable Andral has not confined himself to the dry detail of physical alterations. He has endeavoured to trace up these alterations to their primary shades—to explain the mechanism of their formation—and to ascertain their mutual relation and order of succession. In these investigations he has laboured to restrict the

* "As an instance (say the translators) of the extensive scale on which his pathological investigations have been conducted, I may observe, that he introduces his description of the morbid alterations of the lymphatic vessels, by stating that he examined the thoracic duct in *six hundred* individuals. The number of positive facts collected by one who has enjoyed such extensive opportunities of observation are evidently worth all the theoretical reasonings of the literary compiler, who obtains his knowledge of morbid appearances from books, and compounds his elements of pathology in the study." vii.

influence of INFLAMMATION within rational limits, and successfully combats the absurd doctrine, that every alteration of the living structure depends on an exaltation of its vital powers. In short, he has endeavoured to combine the phenomena of diseases with the physical alterations which we detect in the dead body—and thus to afford us certain data for the rational treatment of them. In pursuing this investigation, M. Andral appears to avoid the warping influence of theory. He admits the influence of solids in the production of morbid phenomena, while he accords considerable importance to the alteration of the fluids. While he admits that local disease is capable of producing constitutional disturbance, he also maintains that those general agents, the blood and the nervous system, may be primarily affected; and that, in this way, general disease may precede the existence of any local affection. M. Andral, in fact, constantly aims at reconciling the jarring interests of adverse doctrines—to select what is of real value from every theory—and thus to profit by all, without wedding himself to any one. In this respect, therefore, the author is a wise eclectic, and the value of a treatise written on such a plan, and by such an author, must be evident.

As to the task of the translators, we conscientiously believe that they have executed it with fidelity, from the comparison of several passages which we have made. With the exception of abbreviating a few cases, the translators have adhered scrupulously to the text of the original. We think we shall best convey an idea of the whole work, by giving a full analysis of some distinct parts—a plan which will prove useful to those who do not possess the work, and, at the same time, offer the greatest temptation to procure it. It is hardly necessary to say that it is in the second volume, containing special pathology, that we must look for a detached subject of analysis, and the first section will furnish us with the first article for that purpose. The first chapter in this section is on the alimentary canal in a healthy state—and the second, on the same part in a state of disease. As we have, in various parts of this journal, presented our readers with accounts of the intestinal canal in states of morbid alteration, especially of its mucous membrane, such as thickening, softening, ulceration, atrophy, perforation, dilatation, contraction, &c. we shall pass over these, and concentrate our attention on the fifth article of the second chapter, entitled—

STATE OF THE ALIMENTARY CANAL IN THE DIFFERENT CASES WHERE ITS FUNCTIONS ARE DERANGED.

After having, in former sections, reviewed all the alterations of structure which the alimentary canal presents to the eye of the morbid anatomist, M. Andral remarks justly that, if each of these alterations invariably produced during life a determinate group of well-marked symptoms, we could easily tell what had occurred before death, by the appearances found on dissection. But this is not the case; for, of all parts of the body, the alimentary canal is that in which *identity of lesions* least infers *identity of symptoms*, either local or general. And now our author attempts to answer the following important pathological question:—*the different groups of symptoms to which particular names have been assigned, being given, what is the state of the alimentary canal, after death, in each case?*

The greater number of the functional derangements to which the aliment-

ary canal is liable, have, of late, been referred to a state of irritation of the part, indicated in the dead body, 1mo. by various degrees of sanguineous congestion; and, 2do. by various alterations of nutrition and secretion. According to the portion affected, the assemblage of symptoms has got the titles of gastritis, enteritis, colitis, gastro-enteritis, entero-colitis, duodenitis, dothinenteritis, &c. These expressions, observes M. Andral, may be adopted, provided we consider them only as *provisional terms*, the use of which is to suggest to the mind certain alterations, of which *irritation* is the common connecting link, or occasional cause; but which, at the same time, differ widely in their nature and causes, as well as in the functional derangements they produce, and the treatment they require. These derangements are then thrown by M. Andral into four classes—1. Modifications of hunger and thirst—2. Modifications of the phenomena of chymification—dyspepsia—3. Modifications of the phenomena of secretion and excretion—4. Modifications of sensibility.

I. Hunger and Thirst.

The sense of hunger may be either inordinately increased (bulimia)—diminished, (anorexia)—or perverted, as in pica. What is the state of the alimentary canal in each of these three cases?

Bulimia has been attributed to particular lesions, as dilatation of the pyloric orifice—opening of the ductus choledochus into the stomach—superabundance of gastric juice—enlargement of the stomach's capacity—the presence of worms. Although these lesions have more frequently been adduced as the causes of bulimia, from theory than from observation, yet some valuable facts may be gleaned from these hypotheses.

"Thus, in a case of a galley-slave remarkable for his voracious appetite, Vesalius asserts he ascertained that the bile flowed directly into the stomach. Tarara, a celebrated glutton, whose history has been given by M. Percy, had a stomach of enormous size; and Cabrole tells us that, in a person who was continually tormented with insatiable hunger, he found an enormous stomach, terminating in an intestine which, from the place where the pylorus usually exists, to the anus, was only three feet long. However, it may be fairly questioned whether the unusual size of the stomach in great eaters, instead of being the primary cause of hunger, is not rather the effect of the great quantity of food they are in the habit of introducing into it.

Bulimia may be produced by a state of irritation of the stomach. It occurs in certain forms of chronic gastritis; but in these cases no sooner is the least quantity of food introduced into the stomach, than total anorexia succeeds to the importunate craving which the patient had previously felt. Many persons labouring under chronic gastritis experience an uneasiness or sensation of dragging in the epigastrium, which they are apt to mistake for hunger.

Bulimia may be completely independent of the state of the stomach, being connected with an habitual or temporary excess of activity in the general nutritive process. Thus, it is frequently observed at the period of puberty, in children when growing rapidly, in convalescents, and lastly, in pregnant women; so that we have here one of the thousand instances of the necessity of seeking the cause of a functional derangement at a distance from the organ whose function is affected." 221.

Anorexia is the most common of all attendants on various morbid alterations of the stomach. Some serious affections of that organ, as molles-

cence, ulceration, induration of the sub-mucous tissue, give rise to no other symptom but want of appetite! In a few cases of organic disease, where lesion was circumscribed, M. A. found the appetite undiminished. Lastly, in some persons, who had, for a length of time, the greatest aversion to every kind of food, our author was not able to find any appearance in the stomach that could at all account for the phenomenon.

But anorexia, like bulimia, may have its cause in other parts besides the stomach. It occurs in almost all acute and even chronic diseases, evidently from the stomach sympathizing with other structures. Emotions of the mind will take away the appetite more frequently, though less permanently than bodily disease. Excessive muscular exercise withdraws the power of the stomach and appetite. In all these various cases, "a modification of the ennervation changes the regular action of the stomach, as it does that of the skin, kidneys, liver, and other organs."

"There are certain states of the system in which most of the actions of the life of relation become suspended, the secretions either cease altogether, or are greatly diminished, and several weeks may elapse without the introduction of any food into the stomach. Such a state occurs naturally every year in hibernating animals. It is probable that, in this singular condition, the process of nutrition of the organs is also suspended, whence the possibility of the creatures doing without food for a very long time; so that here also the modification of the functions of the stomach is only an effect of the modification impressed on more general functions, whose integrity is necessary to the due accomplishment of those of that organ. Thus, by virtue of the *consensus* of all the living parts, the functions of assimilation can only continue perfect so long as the stomach digests properly, and the stomach can digest properly, only so long as there is no derangement in the various functions whose business is to supply or assimilate the nutritive matter to the different tissues." 223.

PICA, or perverted appetite, also may occur as a symptom of chronic irritation of the stomach; but it is by no means generally owing to that cause. Hysteria, chlorosis, and pregnancy, more frequently give it birth. In fine, the causes of all the different modifications of hunger may reside in the stomach itself—in the various tissues for which the stomach prepares matter for assimilation—or in the nervous system, or even in the blood. The same may be said of thirst and its modifications. M. Andral is far from believing that the cause of fever is in the stomach because great thirst or even a red tongue may exist. In respect to the red tongue, so triumphantly appealed to by the Broussaians as proof of gastric irritation, M. Andral shrewdly asks—"is it also necessarily the stomach that reddens the conjunctiva, and injects the skin, in those cases?"

II. DERANGEMENTS OF CHYMIFICATION.

It is now allowed that dyspepsia, in most of its forms, is owing to gastric *irritation*, and Broussais has done much good by referring it to *inflammation* of the stomach, because that doctrine leads to abstinence, which is as necessary for the cure of irritation as of inflammation.

"Yet it may fairly be questioned, whether every case of dyspepsia necessarily results from gastric irritation. The practice of most French physicians of the present day would apparently authorize our answering this question in the affirmative; but at every period of medical science we find the practice regulated by the prevailing theory, and its efficacy

proved by its successful results. It is, however, perfectly well ascertained that some cases of dyspepsia, which had resisted the antiphlogistic treatment, yield readily to other remedies that are any thing but debilitating. And it is equally well ascertained, that in persons who have long suffered from indigestion, the stomach often presents no anatomical lesion sufficient to account for it; and even in those cases where lesions of the stomach are found, it is by no means clear that they have been produced by irritation. If we proceed to investigate the symptoms which attend on this lesion, we find, that there are some which, when combined and strongly marked, appear to be so little the result of irritation, that they are advantageously treated, nay, speedily removed, by means that are themselves irritating." 226.

It is rather difficult to ascertain precisely what M. Andral means by *irritation*, and whether he makes any essential difference between that and *inflammation*. Speaking, in the next section, of "dyspepsia from gastric *irritation*, acute or chronic," he observes that *this* is, beyond all contradiction, "the kind of dyspepsia most commonly met with"—and no doubt it is—but very frequently an irritation totally unaccompanied by inflammation. Contrary to M. Broussais, our author admits the existence of atonic dyspepsia, or weakness of stomach.

"This is observed to occur, 1. under the influence of causes altogether unknown; and 2. subsequently to certain appreciable modifications of the system. Thus, it sometimes happens that the stomach, after having been more or less irritated, falls into the opposite state, and becomes affected with genuine atony. The same happens in some cases of convalescence. This state of atony likewise occurs in persons exhausted by excess in venery, and, still more, by onanism. It would be a serious mistake in such cases to imagine that dyspepsia is always the result of gastric irritation; for that would lead to the employment of remedies which frequently aggravate the complaint. Under such circumstances, I have seen dyspeptic affections yielding rapidly to a tonic regimen, which could not have failed to exasperate the irritation of the stomach, if such there had been. Why may there not be weakness of the stomach as well as of the muscles in those cases? Dyspepsia from weakness of the stomach is generally attended with a complete absence of thirst, and great paleness of the tongue. The patient experiences, after taking food, a sensation of weight in the epigastrium, and frequently a tension in the same region. The use of gum water sometimes produces these symptoms, as do also the infusions of linden and chamomile, though in a less degree. This particular state of the stomach may render the pulse somewhat more frequent; but as we have already seen more than once, frequency of the pulse is necessarily connected with a state of irritation." 228.

The third genus of dyspepsia adverted to by M. Andral, is considered as dependent on "alteration of the follicular secretion of the stomach." This has long been distinguished by the French Physicians under the vague term "Embarras Gastrique," the nature of which is far from being well known. It does not yield to blood-letting—and but slowly to abstinence; —"while it readily gives way to emetics and purgatives." That it is often connected with gastric irritation, he admits—and then the symptoms are exasperated by tartar emetic. But he is far from agreeing with the Broussaians that, in every instance, it is a form of *gastritis*. He presumes that it depends on an altered secretion of the gastric glands; and he cannot see why this "should be considered as necessarily the result of *irritation*, unless we choose to allow that the mucous coating which covers the tongue, neces-

sarily indicates glossitis." This passage shews that M. Andral makes no distinction between irritation and inflammation. This is a sad oversight in our Parisian pathologist!

The next, or FOURTH GENUS of dyspepsia, is attributed to "MODIFICATION of the NERVOUS INFLUENCE."

"We know that the process of chymification may be modified by deranging the innervation of the stomach either by administering opium, cutting the pneumo-gastric nerves, or producing a strong mental emotion. In these various cases, the digestive powers are not so much increased or diminished, as perverted from their natural condition. Certain cases of dyspepsia seem likewise to result from this modification of the nervous influence. Against these, antiphlogistics and tonics are equally unsuccessful, and the reason is evident; for the indication of cure is neither to weaken nor to excite the stomach, but to modify its action." 230.

This indication leaves us pretty much in the dark, as to remedial processes. We are neither to lower nor increase the tone of the stomach:—but to *modify* its action. We suppose this must be to *change* its action, in the same way that the *modes* are changed in Paris. The plain indication is, to search for the cause, and endeavour to remove it—though that, unfortunately, is not often in our power. Suppose it is a moral cause, as domestic affliction, wounded feelings, or pecuniary losses. The nervous energy of the stomach weakened—or, as our author would term it, modified, perverted. Well. Neither tonics nor antiphlogistics will do any good. What are we to do? Should we not simplify and reduce the diet, so as to give the organ as little to do as is consistent with the preservation of life, and render the operation of digestion as easy as possible? This will be the *practical* rule, whatever pathologists may say—and the one which will tend to allay the sufferings of the patient, and enhance the reputation of the practitioner.

DERANGEMENTS OF SECRETION AND EXCRETION.

Under this head our author considers vomiting, diarrhœa, cholera. We find, after death, all kinds of anatomical changes, without any previous vomiting or purging—but yet every one of these lesions occasionally gives rise to the symptoms in question.

"In the first place, we find vomiting produced by all possible degrees of irritation of the gastric mucous membrane, which cause the patient to throw up either his food and drink, or else *the bile that had previously been attracted by the irritation into the stomach*; in other cases the matter vomited consists of blood exuded by the irritated mucous membrane, or of mucus secreted in superabundant quantity; which last, by accumulating, becomes a kind of foreign body, and produces by its presence a secondary irritation more considerable than that to which it owed its existence." 231.

We very much doubt the propriety, or even the truth of the assertion, that an irritation in the stomach will *attract* bile into that organ. Is it not much more likely that the bile is regurgitated from the duodenum into the stomach, during the action of vomiting, than that it should be attracted there by either inflammation or irritation? Even when bile is found in the stomach, without previous vomiting, it is from an inverted action of the duodenum rather than from any suction power in the stomach.

Poisons which irritate and inflame the stomach, almost invariably produce vomiting; "and yet, in the different varieties of fever, which M. Broussais considers as so many cases of acute gastro-enteritis, this symptom is observed but very seldom." Mechanical obstructions of the pylorus, or any other part of the tube, will produce sickness and vomiting, But it is curious that irritation or inflammation of the *serous* membrane of the stomach or bowels, is more apt to cause sickness, than the same diseases in the mucous tissues. "Indeed, nothing is more common than to find it (the mucous membrane) white and healthy in persons dying of acute peritonitis, who had been continually vomiting to the last moment of their lives."

The cause of vomiting is not always in the stomach itself, but must be referred to the nervous centres. Magendie's experiments shew that, when the stomach of an animal is removed, and a bladder substituted, tartar emetic injected into the veins will cause attempts to vomit, and, if the bladder be properly placed, actual vomiting. The sympathetic causes of vomiting are very numerous, as the sight of disgusting objects, sea-sickness, irritation of the fauces, pregnancy, nephritis, diseases of the brain, &c. These kinds of vomiting leave no traces after death in the stomach itself. After these considerations, and in the actual state of our knowledge, M. Andral thinks that "the expression *nervous vomiting* deserves to be retained, as signifying a real morbid state, in which the gastric symptoms that occur have their source, not in the stomach itself, but in the brain, whose texture or action is decidedly modified.

"One of the most striking instances of these nervous vomitings is that recorded by M. Louyer Villermay: the subject was a woman, who, in consequence of a disappointment in love, was attacked alternately with globus hystericus, dyspnœa, and palpitation; she uttered involuntary cries, and at last was seized with vomitings, which were treated in vain by the antiphlogistic method (*diet, emollient drinks, leeching*). She was at last cured by the *vinum absinthii*, and the first food she digested was hard boiled eggs and salad." 234.

We may take this opportunity of alluding to the fashionable ridicule which is now thrown upon the terms *nervous* and *sympathetic* disorders, by a class of medical gentlemen, who are more conversant with the dead than with the living body—with the dissecting-room than with the sick-room. Yet nothing can be more proper than the term *nervous disorder* in a great proportion of human ailments. Nine-tenths of our diseases—even those which leave in the dead body most palpable traces of their existence, are purely *nervous* affections at first—that is, troubles of function, produced solely through the instrumentality of the nerves. Then we must recollect that the brain and great nervous centres are perpetually getting deranged in their functions, from the ten thousand insalutary agents that surround us, and where no organic change is produced perhaps at all—or, if produced, it is by long continuance of the functional disorder, and is then an effect, not a cause of the phenomena of the primary complaint. The testimony of a man so much devoted to pathology as M. Andral is, must also have some weight with the anti-neurologists.

Even the various intestinal fluxes, as dysentery, diarrhœa, and lientery, are not invariably dependent on any peculiar condition of the alimentary canal.

"It is true that, in the greater number of cases, we find in the intestines of persons who

have had any kind of looseness, various alterations, of which the primary cause and common connecting link is a process of irritation, past or present. These alterations exist most frequently in the great intestine, of which they somctimes occupy the whole, and sometimes only a part. There are some cases where the cæcum, and others, where the rectum alone is diseased. The small intestine may continue sound through its whole extent; and one is sometimes struck with the abruptness with which the morbid state commences immediately below the ileo-cæcal valve. In other cases, on the contrary, there is no sign of any lesion to be found in the great intestine, and the end of the ileum is the only part diseased. The most common case is that in which the inferior extremity of the ileum and a more or less extensive portion of the great intestine are simultaneously affected.

These alterations, which have been all described already, from simple injection to ulceration and perfect softening, bear no constant proportion, either to the duration, or the symptoms of the disease. Thus, in several persons who have had a diarrhœa for the same space of time, from eighteen months to two years, for instance, and in whom the disorder has been attended with the same series of phenomena, local and general, there may be found in one a simple red or brown hyperæmia, without any other alteration; in another, a red softening of the mucous membrane; in a third, a white softening of the same; in a fourth, induration with various shades of colouring; in a fifth, an unusual developement of the follicles, without any other lesion; in a sixth, ulcers of various sizes, and in various numbers; and, lastly, in a seventh, some one or other of the above-mentioned alterations of the mucous membrane, together with various morbid states of the subjacent tunics, such as thickening, serous infiltration, &c. As to the symptoms, there is not one that announces with certainty that the intestine is affected with one particular lesion rather than another. Thus we find the same alterations where there has been a serous and bilious diarrhœa, as where there has been dysentery. There is not unfrequently complete absence of fever and of pain in those cases where the intestine is crowded with ulcers, and the mucous membrane is greatly thickened, and of a red, brown, or black colour.

Does dissection discover, in the bodies of all who die while affected with intestinal flux, some one of the alterations just mentioned? This has been asserted, but the assertion is not supported by facts. The researches of modern anatomists have clearly proved, that there are certain cases in which dissection cannot discover any appreciable alteration either in the colour, thickness, or consistence of the intestinal parietes, or the appearance of the follicles, &c. In some of these cases the diarrhœa commenced only a few days before death, and in others had been of a long standing. Here, then, is another case where the appearance of the alimentary canal after death does not lead to any certain knowledge of the functional derangements with which it had been affected during life." 237.

The liver sometimes disgorges such quantities of acrid bile, as to cause diarrhœa, without any primary affection of the intestines themselves. In cholera morbus, our author acknowledges that morbid anatomy throws no light on the nature or cause of the malady.

The fourth class is headed "MODIFICATION OF THE SENSIBILITY." Severe pain, M. Andral observes, seldom accompanies any of the various alterations of texture, in the gastro-intestinal mucous membrane. It may be injected, softened, thickened, or deeply ulcerated, without the patient's complaining of any uneasy sensation—or, at the most, of more than some griping pains on going to stool. This is the case, not only in the chronic, but also in the acute state of these lesions. We may, in general, press the abdomen in all directions, in persons labouring under severe fever, and whose intestines are considerably ulcerated. It is only when the ulcers extend in

depth, so that their bottom is composed solely of peritoneum, that severe pain is felt.

"While the most serious alterations in the texture of the gastro-intestinal mucous membrane produce little or no pain, there are other cases in which the alimentary canal becomes the seat of very severe pain without its texture being at all altered; as in the disease known by the name of colica pictonum, or saturnine cholic. Some writers have asserted that in cases of this affection they found, on dissection, the caliber of the intestines remarkably diminished; others, again, that the symptoms arose from introsusception; and lastly, others, that in persons who have died of the disease, the intestine was found more or less injected, and that, consequently, this disease was a species of enteritis. It is very possible that there may have been found, in the intestines of persons who died of saturnine colic, diminution of caliber, introsusceptions, or various degrees of redness; but all these lesions seem to me to be merely accidental, since, on the one hand, they may occur without producing the symptoms of colica pictonum, and, on the other, they are not invariably found in persons who have died of the disease. I have related elsewhere* in detail several of these cases in which I was not able to discover any appreciable lesion in the alimentary canal. M. Louis has related others of the same description. Neither could I, in a single case, discover any lesion of the nervous centre, and yet there had been remarkable paralysis in most of them." 240.

During the campaigns in Spain, ample opportunities were found to examine the bodies of the people who had died of the Madrid colic, a disease very similar to that from lead. Dr. Pascal has published an account of six dissections of this kind, made by himself; and the result was, that in the colic of Madrid, the lesions of the alimentary canal are neither serious nor constant. In three of the cases out of six, there was slight redness of the intestine. The spinal cord, in all these cases, was strongly injected.

State of the Intestinal Canal in Fever.

Fever must have been one of the first diseases that attracted the attention of mankind. The local affections that are often found to be complicated with fever were, first, considered as *effects* of the disease—and more recently as *causes* of it. The stomach and the brain have been selected, as all our readers know, for the thrones and seats of fevers, by large parties in this and other countries—doctrines that are not quite so new as their modern renovators or inventors seem to think. Bonetus long ago observed that—"Anatomia eorum qui febre maligna extincti sunt, docet *ventriculum cum intestinis* inflammari;" while Bartholinus says—"in *omni* febre acuta imminet ventriculi inflammatio." Sydenham informs us that the intestines become ulcerated in continued fevers; but as he has not given us a single dissection throughout his works, the pathological doctrines of that eminent physician do not stand on very high ground. The following extract will shew M. Andral's opinions respecting fever.

"To seek, in the alteration of one or more parts of the body, the seat and the cause of the fevers called essential; to consider them as merely the symptoms of a local affection more or less manifest; and to direct the treatment against that affection, and not against

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* Clinique Medicale.

the fever itself, which is merely an effect, are parts of the doctrine of M. Broussais which have already produced a most extensive and important revolution in medical science. These tenets, however, form but a part of his doctrine: he has also attempted to specify the lesion which alone, can give rise to the various symptoms that characterize essential fevers, and he maintains that all such fevers are the result of gastro-intestinal irritation. Here he has failed; and while I agree with him that every fever may be attributed to a local source, I think that the localization should not be at all confined as he has made it. On this head, the following propositions appear to me to give a pretty accurate idea of the present state of our knowledge with respect to the seat and nature of fever.

There is no essential fever so called, which may not be referred to the alteration either of some solid or of the blood, as its cause. These essential fevers, then, are not general diseases, inasmuch as they have always a local origin; but they may be considered general in this sense, that, being sometimes seated in the nervous centres, or in the blood, they produce a disease all over the body, wherever the blood and nerves are distributed, or, in other words, a general disease.

With respect to their local origin, fevers may be divided into three classes; the first consisting of such as arise from primary alteration of the nervous centres; the second, of those arising from the lesion of a solid; and the third, of those arising from a modification of the blood.

The fevers belonging to the first class are distinguished by that assemblage of symptoms which M. Pinel has assigned to adynamic and ataxic fever, especially the latter. The former, however, more frequently occurs when the disorder of the nervous centres is subsequent to an affection of the alimentary canal, or some other part. Although the symptoms of those fevers plainly point out their seat during life, dissection sometimes discovers no more alteration in the nervous centres than in the other organs. In my opinion, this absence of alteration does not affect the determination of the seat of the disease; that having been too clearly indicated by the derangement of the functions to be mistaken. Will any one assert that epilepsy or tetanus is a general disease, because he cannot discover any lesion in the bodies of persons who have died of either?

Fevers of the second class depend on the primary alteration of a solid; this alteration may be, 1. in the quantity of blood it receives; 2. in its texture; or, 3. in its functions only. The solid primarily affected is certainly in a large proportion of cases the alimentary canal, but it may also be the skin, lungs, liver, kidneys, heart, vessels, uterus, ear, prostate, &c. I have mentioned these different parts, because I am in possession of facts that prove that the alteration of any one of them, without any concomitant lesion of the alimentary canal, is capable of giving rise to the symptoms that constitute the different essential fevers. The tongue in some of those cases I allude to, was red, in others thickly coated, and in others dry and black, and yet on dissection there was no lesion discovered either in the stomach or intestines.

In these various cases, we are far from being always able to establish a constant proportion between the intensity of the lesion, and the nature of the symptoms that constitute the fever; as they depend much less on the severity of the local lesion, than on the state of the innervation and sanguification that happens to exist in the individual in whom the lesion occurs. In fact, on this circumstance it depends whether the slightest lesion may not occasion a most serious ataxic or adynamic fever; and a much more severe one produce only inconsideradle symptoms.

Adynamic fever, which is so often occasioned by these various lesions, is a complex term comprehending several morbid states differing greatly with respect to their nature and proper treatment. It is often merely the result of considerable oppression of the vital powers, produced by a local lesion. But, frequently also, when the lesion occurs,

the nervous centres have scarcely reacted before they fall into the real state of collapse, and in this case the adynamic condition is genuine; the nervous influence by which every organ lives has really lost its energy; and throughout the whole body life is less active, and the resistance to the return of the organized being to the dominion of the laws of physics is less strong; we have here a genuine adynamic state produced by an increase of vitality in some part of the body. In such cases it may happen that along with the signs of prostration of strength we observe some symptoms of cerebral excitement; but such symptoms are only factitious, as the adynamic state is in the other cases. We must therefore beware of supposing that subsultus tendinum, convulsions, and delirium, are always signs of increase of cerebral life: they are so far from being necessarily so, that they sometimes occur after abundant hæmorrhages.

Lastly, the third class of fevers appears to be more particularly connected with alterations of the blood. On this head, I can but refer to what I have already said in the first volume, when treating of the diseases that may arise from that source. I shall content myself at present with repeating that the ferver termed *inflammatory*, seems to me often to arise from no other source than the blood's being too rich in fibrine; in like manner an impoverished state of the blood, whether accidental or natural, is often connected with mucous fevers, and with those characterized by a sudden sinking of the vital powers: the blood's not being sufficiently depurated is certainly the cause of the fever termed *urinous*, and probably that of certain bilious fevers also; lastly, the source and primary seat of typhus fevers, properly so called, is proved to be in the blood, inasmuch as they are caused by the introduction of deleterious substances, such as animal or vegetable effluvia, into that fluid." 252.

The above is a moderate *eclectic* doctrine, and probably more near to the truth than any which has recently been propounded. The abrupt denial of the existence of such a thing as *idiopathic* or general fever, is soon qualified by the admission that the fever is sometimes as *general* as the distribution of the *blood and the nerves*—which is latitude enough for any man.

The last section in this division of the work, treats of "the state of the alimentary canal in the diseases of various organs." It has long been known that the alimentary canal exercises an immense influence on other organs of the body, and also that it is readily influenced in its turn, by the disorders of those other organs or parts. M. Andral calculates that, in eight out of ten cases of acute diseases of other organs, the alimentary canal will be found to suffer either in function or structure. In *function*, we would say that it is hardly possible for the alimentary canal to escape, when any acute inflammation exists in any part of the body.

In chronic diseases the digestive apparatus is almost certain to suffer. This derangement is sometimes permanent, and becomes chronic like the disease with which it is complicated—in other cases it is periodical.

"The gastro-intestinal irritation that occurs thus intermittingly may produce no effect on the primary chronic affection; but the reverse frequently happens. There are cases, for instance, in which, whenever the irritation of the digestive passages re-appears, the chronic affection is exasperated, and has a tendency to return to the acute state; there are others in which, on the same occasion, the old affection, so far from being exasperated, is so much amended that its symptoms become much less apparent. Lastly, in many cases, whether the primary chronic affection be unaltered, aggravated, or relieved, the gastro-intestinal irritation produces another effect: it acts on the innervation, and produces in the

patient exhausted by long disease that assemblage of symptoms that characterizes the adynamic fever of Pinel. Under such circumstances, a slight irritation of the alimentary canal is sufficient to produce a great and sudden prostration of strength. Many persons affected with a chronic disease that has long been undermining the constitution, sink thus under an adynamic fever arising from a trifling congestion in the alimentary canal. The danger of such a hyperæmia is not so much in proportion to its intensity, as to the diathesis of the patient at the time it occurs." 253.

Chronic irritation in the mucous membrane of the chest seldom fails to affect this same membrane below the diaphragm, and vice versâ. The alimentary canal is so generally diseased in tubercular bronchitis, that such disease becomes as it were, one of the elements of phthisis, and almost makes a constituent part of it.

In about four fifths of the pthisical patients that die at an advanced period of the complaint, the intestines are found greatly diseased—and that by ulceration, generally about the end of the small intestine, and the cæcum. These ulcerations are very variable in number, size, and form; and are commonly formed without pain, producing merely diarrhœa. There are, however, alternations of diarrhœa. The stomach is often affected in phthisis, but in a different manner—not by ulceration, but by softening of the mucous membrane, or attenuation of the same.

"What is the cause of the dyspepsia or of the pains in the stomach experienced by many women affected with leucorrhœa? Do they suffer merely from simple gastric irritation? Is the morbid modification that takes place in their stomach, of the same nature as that which the utero-vaginal mucous membrane has undergone? If the alteration of secretion that takes place in the latter is often removed only by treatment that is any thing but antiphlogistic, are we to employ the same treatment to relieve the stomach? There is still some light wanting on this subject: however, as it is always advantageous to the cause of science to publish facts for the accuracy of which we can answer, I shall state briefly the following case. A woman was admitted at *La Charité* with a leucorrhœa of long standing, difficulty of digestion, and a pain in the region of the stomach. I prescribed leeches to the epigastrium, without effect; and opiates were found equally unsuccessful. I then tried pills of extract of bark and iron filings, whereupon the pain in the epigastrium diminished, and digestion was restored." 256.

Cutaneous affections, our author observes, are accompanied, as frequently as those of the various mucous membranes, by a diseased state of the *primæ viæ*. Thus, in persons who die of excessive burns, the alimentary canal is generally found of an intensely red colour. In many cases of erysipelas, the stomach is affected at the same time. At the commencement of the febrile exanthemata, there is almost always a congestion of one of the mucous membranes. In scarlatina, it is the mucous membrane of the pharynx—in measles, the air-passages—in small-pox, the stomach. Before the eruption of this last disease, the gastric lining membrane generally presents only a slight irritation, which diminishes rather than increases when once the eruption appears. In some cases, however, this precursory irritation is very severe, and continues after the eruption comes out.

"The gastro-intestinal irritation, though slight at the commencement, may become much more intense during the course of the disease; and in many cases where the small-pox is termed putrid, malignant, adynamic, &c., it is merely complicated with a

more or less severe gastro-enteritis, which, on the one hand, has modified the eruption, and on the other, has reacted on the nervous centres. When the disease proves fatal, there are found in the alimentary canal the various alterations already described, from hyperæmia to ulceration. Are there also found in it pustules similar to those that cover the skin? Since they are observed very distinctly on the mucous membrane of the cheeks, there is no reason why they should not also occur on the portion of the membrane situated lower down. But, though in theory the existence of variolous pustules in the intestine is admissible, they have never yet been seen there. The mucous follicles, more developed than ordinary, have often been taken for them; such a mistake is particularly easy in children, in whom these follicles are very often large." 258.

The chronic exanthemata are attended with a state of irritation in the digestive organs, much less frequently than has been asserted—at least this is the opinion of M. Andral. He instances as proof, the strong medicines which M. Biett so happily, and so successfully employs in the St. Louis Hospital. But there are other states than that of irritation or inflammation in the stomach and bowels. The functions of these parts may be greatly disordered in other ways, and may be much bettered by active medicines administered internally.

The following passage concludes this division of the work.

"One of the most important services which M. Broussais has rendered to medicine, was the proving that, in many cases where, from the functional derangements, one would suppose the nervous centres were alone affected, the origin of the disease is really to be found in an irritation of the alimentary canal. This is true of all ages, particularly of infancy. In children it frequently happens that, after coma, convulsions, &c. there is no morbid appearance to be discovered in the brain, while the alimentary canal is evidently diseased.

A great many functional derangements of the nervous centres have been referred to irritation of the digestive tube, because the intestines have frequently been found diseased in cases where such arrangements had existed. Thus, it has been asserted that tetanus, epilepsy, chorea, apoplexy, and alienation of mind, result from gastro-enteritis. In my opinion, there is not a nervous disorder that may not be developed in consequence of an irritation of the alimentary canal, as well as of any other part; but then a previous disposition to it is requisite.

On the other hand, the nervous centres, when primarily affected, often exercise as great an influence over the alimentary canal as it does over them; but the influence is not always of the same kind: sometimes, for instance, irritation of the brain produces in the stomach a hyperæmia demonstrable by dissection, and sometimes an excitement indicated by the derangement of its functions, but not discoverable by the anatomist. Thus it often happens, as we have already remarked, that we cannot discover any lesion in the stomach of persons who have been affected with copious vomitings in consequence of acute hydrocephalus. Lastly, in other cases, diseases of the brain affect the alimentary canal with a kind of torpor, so that emetics and purgatives do not produce any effect." 261.

From this analysis of a single division of M. Andral's Pathology, our readers will be convinced of its value, and great practical utility. In some succeeding articles, we shall offer further proofs of this favourable opinion.

XVII.

CHANGE OF AIR, OR THE PURSUIT OF HEALTH; AN AUTUMNAL EXCURSION THROUGH FRANCE, SWITZERLAND, AND ITALY, IN THE YEAR 1829; WITH OBSERVATIONS AND REFLECTIONS ON THE MORAL, PHYSICAL, AND MEDICINAL INFLUENCE OF TRAVELLING-EXERCISE, CHANGE OF SCENE, FOREIGN SKIES, AND VOLUNTARY EXPATRIATION. By *James Johnson*, M.D. Physician Extraordinary to the King. Octavo, pp. 275. Highley, 1831.

IT is hardly necessary to say that no *review* of the above work can be given in this Journal; but a few extracts may be fairly laid before our readers, to enable them to comprehend something of the nature of the performance. The short preface will best explain the design, while it is from the extracts that an opinion can be grounded as to the execution.

PREFACE.

"As the title-page fully expresses the nature of this little volume, a few words only of Preface will be necessary. The Work consists of three Parts, united by the thread of the subject. The FIRST contains some observations on that WEAR and TEAR of mind and body, which we particularly remark in civilized life, and especially in large cities; together with some suggestions as to the antidote or remedy. The SECOND Part consists of reflections and observations made during an excursion through France, Switzerland, and Italy, in the year 1829; partly for recreation—but principally for renovation of health. The THIRD division contains some remarks and speculations on the moral, physical, and medicinal influence of foreign, and especially of an Italian climate and residence, in sickness and in health. In each of these divisions, the author hopes that he has been able to combine utility with some portion of amusement, for those, (and they are many,) who, like himself, seek an occasional renovation of health in a temporary relaxation from the toils of avocation.

Novelty in *description* is now quite out of the question—and from *description* he has generally abstained. Impressions and reflections will continue to be varied, till the minds and features of human beings become similar—and in this respect only, can novelty, or rather variety of sentiment be expected. The construction of this volume will show that the author estimated its value at a very low rate, and consequently imposed but a very moderate tax on the public. He did not—indeed he could not, travel as an Antiquarian, Painter, Architect, Botanist, Geologist, or Politician. He roamed from place to place, as a philosophic observer. It is well known that many people migrate annually to Italy, in search of health—and there find a grave;—while a still larger class go thither in quest of pleasure and improvement, and bring back the seeds of disease. The observations of a medical traveller, not inexperienced in the investigation of climatorial influence on the human constitution, mental and corporeal, may prove useful to those who wander or sojourn on the classic soil of Italy, for any of the above purposes;—while the reflections which he has hazarded on the *moral* effects of foreign residence, or rather *expatriation*, may possibly interest a still wider circle of readers.

The author is well aware of the many imperfections of this little volume; which the nature of his avocations, after the bustle of travelling, gave him little time to correct. But he throws himself on the mercy of the critic and of the public, with a just confidence that they will make allowance for the circumstances under which the work was composed."

EXTRACTS.

I. WEAR AND TEAR.

"There is a condition or state of body and mind, intermediate between that of sickness and health, but much nearer the former than the latter, to which I am unable to give a satisfactory name. It is daily and hourly felt by tens of thousands in this metropolis, and throughout the empire; but I do not know that it has ever been described. It is not curable by physic, though I apprehend that it makes much work for the doctors ultimately, if not for the undertakers. It is that WEAR AND TEAR of the living machine, mental and corporeal, which results from over-strenuous labour or exertion of the intellectual faculties, rather than of the corporeal powers, conducted in anxiety of mind and in bad air. It bears some analogy to the state of a ship, which, though still sea-worthy, exhibits the effects of a tempestuous voyage, and indicates the propriety of re-caulking the seams and over-hauling the rigging. It might be compared to the condition of the wheels of a carriage, when the tyres begin to moderate their close embrace of the wood work and require turning. Lastly, it bears no very remote similitude to the strings of a harp, when they get relaxed by a long series of vibrations, and demand bracing up.

This WEAR-AND-TEAR COMPLAINT (if the designation be allowed) is almost peculiar to England, and is probably a descendant of the old "ENGLISH MALADY,' about which so much was written a century ago. And why should it predominate in London so much more than in Paris? The reason is obvious:—In London, business is almost the only pleasure—in Paris, pleasure is almost the only business. In fact, the same cause which produces the WEAR-AND-TEAR malady, namely, hard work, or rather over-exertion, is that which makes our fields better cultivated, our houses better furnished, our villas more numerous, our cottons and our cutlery better manufactured, our machinery more effective, our merchants more rich, and our taxes more heavy than in France or Italy. If we compare the Boulevards, the cafés, the jardins, the promenades of Paris, with corresponding situations in and around the British Metropolis, we shall be forced to acknowledge that it is nearly 'all work and no play' with JOHN BULL during six days in the week, and vice versâ with his Gallic neighbours. Does this 'wear and tear' tell at last upon John's constitution, intellectual and corporeal? I do not speak of the mere labour of the body. The fatigue induced by the hardest day's toil may be dissipated by 'tired Nature's sweet restorer, balmy sleep;'—but not so the fatigue of the mind! Thought and care cannot be discontinued or cast off when we please, like exercise. The head may be laid on the pillow, but a chaos of ideas will infest the over-worked brain, and either prevent our slumbers, or render them a series of feverish, tumultuous, or distressing dreams, from which we rise more languid than when we lie down!" 4.

II. CARE-WORN COUNTENANCE.

"Whether the *seat* of our feelings and our passions be in the head or in the heart, one thing is certain, that their *expression* is in the countenance. To mask or conceal this expression is the boast of the villain—the policy of the courtier—the pride of the philosopher—and the endeavour of every one. It may appear remarkable that it is much easier to veil the more fierce and turbulent passions of our nature, as anger, hatred, jealousy, revenge, &c. than the more feeble and passive emotions of the soul, as grief, anxiety, and the various forms of CARE. The reason, however, is obvious. Vivid excitement, and tempestuous feeling cannot last long, without destroying the corporeal fabric. They are only momentary gusts of passion, from the effects of which the mind and the body are soon relieved. But the less obtrusive emotions resulting from the thousand forms of solicitude, sorrow,

and vexation growing out of civilized life, sink deep into the soul, sap its energies, and stamp their melancholy seal on the countenance, in characters which can neither be prevented nor effaced by any exertion or ingenuity of the mind! The tornado, and the cataract from the clouds, wear not such deep furrows in the mountain's rocky side, as the faintly murmuring rill, whose imperceptible but perpetual attrition effectuates more in the end, than the impetuous but transitory rush of the roaring torrent engendered by the storm, not fed by the spring.

Gutta cavat lapidem non vi sed sæpe cadendo.

This care-worn countenance, in short, is a more obvious mark of the WEAR AND TEAR of mind, in modern civilized life, than premature age:—for age is relative, and its anticipated advance can only be appreciated by a knowledge of its real amount, which can seldom be attained." 8.

III. ETIOLATION, OR BLANCHING.

"The inhabitants of a city may easily be distinguished from those of the country, by the pallor of their complexions. The care-worn countenance, last alluded to, is generally "sicklied o'er with the pale cast of thought," but the etiolation or blanching which I am now to notice, takes place independently of much thinking or mental anxiety. It cannot, in fact, boast of such an intellectual origin as the other. It is the result of physical, rather than of moral causes—more especially of bad air, inexposure to the light of Heaven, sedentary avocations, inactivity, late hours, &c. I have used the word etiolation, because I think it perfectly appropriate. When a gardener wishes to etiolate, that is, to blanch, soften, and render juicy a vegetable, as lettuce, celery, &c. he binds the leaves together, so that light may have as little access as possible to their surfaces. In like manner, if we wish to etiolate men and women, we have only to congregate them in cities, where they are pretty securely kept out of the sun, and where they become as white, tender, and watery as the finest celery. For the more exquisite specimens of this human etiolation, we must survey the inhabitants of mines, dungeons, and other subterranean abodes—and for complete contrasts to these we have only to examine the complexions of stage-coachmen, shepherds, and the sailor 'on the high and giddy mast.' Modern Babylon furnishes us with all the intermediate shades of etiolation, from the 'green and yellow melancholy' of the BAZAAR MAIDEN, who occupies somewhat less space in her daily avocations and exercise, than she will ultimately do in her quiet and everlasting abode, to the languishing, listless, lifeless ALBINOS of the boudoir, etiolated in HOTHOUSES, by the aid of 'motley-routs and midnight madrigals,' from which the light as well as the air of Heaven is carefully excluded! Thus penury and wealth, obscurity and splendour, industry and idleness, the indulgence of pleasure and the endurance of pain, all meet at the same point, and, by the mysterious workings of an overruling Providence, come to the same level, in this respect, at last! That voluntary dissipation should suffer all the evils attendant on necessary and unavoidable avocation, no one can regret:—but that useful toil and meritorious exertion should participate, and more than participate in the miseries which follow in the train of the 'gay licentious proud,' is a melancholy reflection. The longer we live in this world, however, and the more narrowly we watch the ways and the fate of man, the more we shall be convinced that vice does *not* triumph here below—that pleasure is invariably pursued by pain—that riches and penury incur nearly the same degree and kind of taxation—and that the human frame is as much enfeebled by idleness as it is exhausted by labour." 10.

IV. LA BELLE FRANCE.

"Of all the countries which these eyes have yet beheld—
——— A gadibus usque
Auroram et gangem—

LA BELLE FRANCE is the most uninteresting. The flowers—nay even the flatness of Holland—with all its smooth canals and shaded dykes (those monuments of industry)—its fertile fields—its neat and cleanly towns—its painted houses, varnished furniture, and broad-based, thick-headed inhabitants, excite a variety of emotions, and those generally of a pleasant kind, in the mind of the traveller—but FRANCE, from the Pyrenees to the Rhine, from the Jura to the Atlantic, from Antibes to Calais, presents very few spots indeed, compared with her vast extent of surface, on which the eye can rest with either pleasure or admiration.* Her mountains are destitute of sublimity—her valleys of beauty. Her roads are still, in most places, and at the best, but narrow, rude, and rugged chaussées, bordered, on each side, with mud in Winter, and sand in Summer; less calculated to 'speed the soft intercourse' among her inhabitants, than to demolish the springs of carriages, and dislocate the joints of travellers—designed, apparently, to check very effectually, the 'march of intellect,' by causing a concussion of the brain at every step! Her fields, though fertile, are fenceless, and slovenly cultivated, presenting a bald and frigid aspect. Her VINEYARDS, even in the Bordelais, along the smiling borders of the Garonne, resemble plantations of turnips when compared with those on the romantic banks of the Rhine, the sloping glades of Italy, or the upland scenes of Madeira. Her gentlemen's country-seats are in Paris; and their chauteaus—in ruins—

'With nettles skirted and with moss o'ergrown.'

Her horses are rough, ugly, pot-bellied, ill-tempered, sour-countenanced, hard-working animals—the harness never cleaned or greased from the moment of its first construction till its final dissolution by winds and rains—her stage-waggons, y'cleped 'Diligences,' are loco-motive prisons or pontons, in which the traveller is pressed, pounded, and, what is worse than all, poisoned with mephitic gases and noxious exhalations evolved from above, *below*, and around.† Her provincial villages, towns, and even cities, are emblems of dullness:—long, narrow streets, with solitary lamps suspended at mournful distances in the middle, as if to point out the kennel that runs in the centre below, fraught with every kind of filth—HOUSES as if they had been shaken in a bag, and then jumbled together without regard to order, architecture, or any kind of regularity—tawdry painted exteriors, and cheerless, gloomy interiors—FLOORS without carpets, and hearths without grates—windows admitting as much air as light—fires without heat; easily kindled, rapidly consumed, and dearly paid for!—bell-ropes without bells, and servants without attendance—tables covered with a profusion of 'dishes tortured from their native taste,' and terrible to think of, much more to swallow!—vegetables drowned in oil or butter for the third or fourth course, and, after the Englishman has made a wretched dinner, like a cannibal—wine like vinegar

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* "Even John Bell, from novelty and non-acquaintance with other countries, has launched out in extravagant praises of 'fair and fertile France.' His description of the scenery between Paris and Lyons is a caricature that will be very gratifying to Frenchmen—but it is a false picture. Excepting the banks of the Saone, between Macon and Lyons, the country is any thing but interesting. The spirited authoress of 'Rome in the 19th Century,' has drawn a more accurate, when she tells us that—'France is the most unpicturesque country in Europe. It is every where bounded by beauty, (the Alps, the Pyrenees, the Jura Mountains, &c.) but the country these grand boundaries inclose is remarkably devoid of beauty and interest. *It is a dull picture set in a magnificent frame.*'" Vol. I. p. 36.

† "It is very seldom that we meet with a foreigner, and especially a Frenchman, who has not a 'smoky chimney.' What with garlic dishes, rancid oils, everlasting cigars, and total inattention to mouth-washing, our Continental fellow-*voyageurs* are any thing but agreeable companions in a closed up diligence during the night!"

in the land of grapes!!—lastly, the BILL, (for I speak of hotels) a never-failing dessert, and often as *griping* as the wine, is modestly and conscientiously charged double, or nearly so, to the unfortunate ANGLOIS, who has not eaten a tithe of what his voracious Gallic messmates have consumed and pocketed!" 36.

V. GENEVA.

"GENEVA itself is singularly well situated for health, cleanliness, and many of the mechanical arts, independently of the romantic and beautiful scenery surrounding it. A small island having split a magnificent river into two streams, immediately as it issues from one of the finest lakes in Europe, the town is thrown across this island and occupies the four opposite banks. Four level bridges maintain an easy communication between all parts of the town; and, as the houses project on piles over the river, the stream runs with a rapid course, not only through, but under a considerable portion of the streets and houses. Advantage is taken of this peculiarity of situation to abridge labour and save expense. It is not less curious than delightful to see the blue and 'arrowy Rhone' leap joyous though the streets of Geneva, ever ready and willing to lend its powerful aid to industry. It grinds their corn, washes their clothes, spins their cotton, cards their wool, turns their lathes—and, in short, is to the inhabitants a gigantic steam-engine, of inexhaustible power, voluntarily and gratuitously supplied by a thousand glaciers and ten thousand mountain streams." 47.

VI. SION. CRETINISM.

"We are now in the centre of the Vallais—the head-quarters of goitre and cretinism. There are few portions of the earth's surface, in these temperate climes, better calculated for the deterioration, if not the destruction of life, than the Valley of the Rhone. It is bounded on each side by steep mountains, four or five thousand feet in height—and the intermediate ground contains all the elements that are found to operate against human health. The valley consists, in some places, of a rich, flat, alluvial earth, covered with corn, fruit trees, and gardens—in others, it presents swamps and meadows—then, again, jungle and woods—vineyards—pine forests, &c. while brawling brooks intersect it in all directions, and often inundate it, in their precipitous course from the mountains to the Rhone, which runs through its centre. Were this valley beneath a tropical sun, it would be the seat of pestilence and death. As it is, the air must necessarily be bad; for the high ridges of mountains, which rise like walls on the north and south sides, prevent a free ventilation, while, in Summer, a powerful sun beats down into the valley, rendering it a complete focus of heat, and extricating from vegetation and humidity a prodigious quantity of malaria. In Winter, the high southern ridge shuts out the rays of a feeble sun, except for a few hours in the middle of the day—so that the atmosphere is not sufficiently agitated at any season of the year. To this must be added, the badness of the waters which, along the banks of the upper Rhone, are superlatively disgusting.

As the Vallais is the land of cretinism, so is SION the capital of that humiliating picture of humanity! There are but few travellers who take the trouble to examine SION philosophically, and make themselves acquainted with the state of its wretched inhabitants. I explored this town with great attention, traversing its streets in every direction; and I can safely aver that, in no part of the world, not even excepting the Jews' quarter in Rome, or the polluted back lanes of ITRI and FONDI, in the kingdom of Naples, have I seen such intense filth! With the exception of two or three streets, the others present nothing on their surface but a nameless mass of vegeto-animal corruption, which, in all well-regulated towns, is consigned to pits, or carried away by scavengers. The alleys are narrow; and the houses are constructed as if they were designed for the dungeons of malefactors, rather than the abodes of men at liberty.

Gotire, on such a scale as we see it in the Vallais, is bad enough; but CRETINISM is a cure for the pride of man, and may here be studied by the philosopher and physician on a large scale, and in its most frightful colours. This dreadful deformity of body and mind is not confined to the Alps. It is seen among the Pyrenees—the valleys of the Tyrol—and the mountains of China and Tartary. Nearly 200 years have elapsed since it was noticed by Plater, in the spot where I am now viewing it; but Saussure was the first who accurately described this terrible degeneracy of the human species. From common bronchocele, and a state of body and mind bordering on health, down to a complete destitution of intelligence and sensibility—in short, to an existence purely vegetative, Cretins present an infinite variety of intermediate grades, filling up these wide extremes. In general, but not invariably, goitre is an attendant on cretinism. The stature is seldom more than from four to five feet, often much less—the head is deformed in shape, and too large in proportion to the body—the skin is yellow, cadaverous, or of a mahogany colour, wrinkled, sometimes of an unearthly pallor, with unsightly eruptions—the flesh is soft and flabby—the tongue is large, and often hanging out of the mouth—the eyelids thick—the eyes red, prominent, watery, and frequently squinting—the countenance void of all expression, except that of idiotism or lasciviousness—the nose flat—the mouth large, gapping, slavering—the lower jaw elongated—the belly pendulous—the limbs crooked, short, and so distorted as to prevent any thing but a waddling progression—the external senses often imperfect, and the Cretin deaf and dumb—the tout ensemble of this hideous abortion of Nature presenting the traits of premature old age! Such is the disgusting physical exterior of the apparently wretched, but perhaps comparatively happy, Cretin!" 57.

VII. A NIGHT ON THE SIMPLON.

"The descent from the barrier to the village of the Simplon winds between wild, barren, and snow-clad heights—and the traveller is not sorry to ascend the dirty, cold, and stony stairs of the HOTEL DE LA POSTE into a dreary 'SALLE A MANGER,' where a stinking German stove, with its murky and sudatory atmosphere, is a miserable substitute for the blazing faggots of France, or the powerful radiation of light and heat from an English fire-side! Invalids should not stop here; but those who are in tolerable health should take two days to the Simplon, sleeping in this eagle's nest, in order to feel the contrast between the mountain air of the Alps, and the mephitic atmosphere of the Vallais. In a small apartment, ten or twelve feet square, I was fortunate enough to find a chimney, and took good care to kindle a cheerful fire. I had walked almost the whole way up the Simplon—made a hearty dinner—and taken my bottle of *mountain* wine. The crackling of the pine faggots, the murmuring of the tapering flame, the genial warmth of the ungrated hearth, the circumscribed dimensions of my little chamber, the howling winds, descending in the fitful blasts from the Schonhorn, the Fletschorn, and the hundred surrounding glaciers, shivering the broken panes and disjointed frames of my little window, disturbed not, but rather aided, an hour's rumination, with all its discursive ranges among the fields of fancy, memory, and imagination, till a sleep, too deep for dreams, and such as monarchs have vainly sighed for, with all the opiates of wealth, power, and pleasure, sealed my senses in seven sweet hours of heavenly and restorative oblivion." 63.

VIII. PELLAGRA OF LOMBARDY.

"A phenomenon resulting from the physical operation of climate on the human race, and which is equally curious and melancholy to contemplate, may be seen on a large scale in a great hospital of Milan—the PELLAGRA of the Lombardo-Venetian plains. Those who have not courage to view it in the living body, may form a tolerable idea of its external characters from some excellent representations in wax, at the Museum of the University of Bologna.

This horrible malady, or complication of maladies, has only been observed during the last 60 or 80 years, and is rapidly increasing. The proportion of cases in the hospital is very considerable.* It begins by an erysipelatous eruption on the skin, which breaks out in the Spring, continues till the Autumn, and disappears in the Winter—chiefly affecting those parts of the surface which are habitually exposed to the sun or the air. This cutaneous symbol of an internal disorder is accompanied or preceded by remarkable debility, lassitude, melancholy, moroseness—hypochondriacism—and not seldom a strong propensity to suicide. Year rolls on after year, and the cutaneous eruption, as well as the general disorders, become more and more aggravated, with shorter and shorter intervals in the Winter. At length the surface ceases to clear itself, and becomes permanently enveloped in a thick, lived, leprous crust, somewhat resembling the dried and black skin of a fish! By this time, the vital powers are reduced to a very low ebb—and not seldom the intellectual functions. The miserable victim of this dreadful pellagra loses the use of his limbs, more particularly of the inferior extremities—is tormented with violent colick, headach, nausea, flatulence, and heartburn—the appetite being sometimes nul, at others voracious. The countenance—becomes sombre and melancholy, or totally void of expression—the breath fetid—the teeth rotten—the inside of the mouth ulcerated—the mucous membrane highly irritable, and diarrhœa is a common accompaniment of the other disastrous train of miseries. But the most distressing phenomenon of all, is a sense of burning heat in the head and along the spine, from whence it radiates to various other parts of the body, but more especially to the palms of the hands and soles of the feet—tormenting the wretched victim day and night, and depriving him completely of sleep! He frequently feels as if an electric spark darted from the brain, and flew to the eye-balls, the ears, and the nostrils, burning and consuming those parts. To these severe afflictions of the body are often added strange hallucinations of the mind. The victim of pellagra fancies that he hears the incessant noise of mill-stones grinding near him—of hammers resounding on anvils—of bells ringing—or the discordant cries of various animals! The disease when advanced, takes the form of many other maladies, as tetanus, convulsions, epilepsy, dropsy, mania, and marasmus†—the patient ceasing at last to exist and to suffer, when reduced to the state and appearance of a mummy. It is by no means uncommon—who can say it is wonderful—that the wretched being abbreviates the term of his afflictions, and anticipates the too tardy hand of death in a paroxysm of suicidal mania! It is remarkable that this tendency to self-destruction very often assumes the form of a desire to consummate that last act of the tragedy by drowning—so much so that STRAMBI, a writer on the pellagra, has given it the name of HYDROMANIA, when this propensity exists," 76.

IX. A NIGHT ON THE APENNINES.

"Choice induced us to spend a night 'above the storm's career,' in the village of the Simplon. Necessity or rather the GOD of LOVE, compelled us to sleep in a 'house of ill fame,' on the summit of the Apennines. The cavalcade of a marriage in high life—the betrothed Princess of Naples on her way to wedlock with her uncle, Ferdinand, the embroiderer—stopped us full an hour between Pietra Mala and Caviliajo, obliging us to sleep at the latter place, a solitary inn in the centre of these mountains—'the scene of one of

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* "It has been supposed that a sixth or seventh of the population is affected with pellagra, in those parts of the country where it is most prevalent."

† "It is on this account that we see written over the heads of the beds in Milan Hospital, the various diseases to which pellagra forms the adjective, as atrophia pellagrina, phthisis pellagrina, hydrops pellagrinus, paralysis pellagrina, mania pellagrina, &c."

those deep-laid confederacies for plunder and assassination, of which Italy has always been a prolific theatre.' We had the pleasure of reading in Forsyth, that, from this same inn, 'travellers daily disappeared, and could never be traced by their spoils.' Two of his acquaintances escaped by stratagem; and, not long afterwards, the banditti were surprised while feasting at the parsonage in the neighbourhood, when the horrible mystery was revealed.

'It was the law of this society to murder all the passengers they stopped—to kill and bury the horses, burn the carriages and baggage, rescuing only the money, jewels, and watches. BIONDI, the curate, was their captain—the MISTRESS of the INN was their accomplice, who sent him notice of every traveller that lodged at her house.'

Notwithstanding this astounding intelligence, we supped very comfortably, and I retired to my chamber, which was in the back of the house, over the stables—the window being without fastenings, and a pile of stones reaching up to within two feet of the window-still, from a dreary and suspicious wood, offering a most tempting facility to any of BIONDI'S gang who might wish to pay me a nocturnal visit. In despite of this appalling history and these ominous phenomena—nay, in spite of a tremendous storm of 'thunder, lightning, and of rain,' which demolished the few remaining panes of glass in my chamber window, I slept as soundly, and I believe as safely, as I should have done in 'Modern Babylon.' A journey from one end of Italy to the other—sometimes with tempting equipage—sometimes as a solitary, unarmed, and defenceless rambler, has convinced me that, with common prudence and good humour, a traveller is as safe in this land of banditti, as in any part of the British dominions. An Italian will outwit you—or, if you please, cheat you, in every possible way—but he will not murder you—pillage you—or steal from you, if you leave your baggage open in the court of the inn where you sleep." 86.

X. CLIMATE OF FLORENCE.

"Such is the far-famed Arno, along the banks of which the public promenades are constructed, and take, on both sides of the river, as well as at Pisa, the name of LUNG' ARNO —signifying, on the right bank, LUNG-WARMER—on the left, LUNG-HARMER. The span of the Trinita or Carraja Bridge makes all the difference between Summer and Winter in Florence. The LUNG' ARNO, on the North side of the river, being sheltered by the city from the tramontane winds, and open to the sun, is warm, or even hot—while, at the same moment, Schneider's side being exposed to the Apennine blast, and excluded from the solar beams, is chilling cold. And yet the warm side of the Arno is the more dangerous of the two for the sensitive invalid. Thus, while pacing the promenade between the two bridges above-mentioned, the wind being northerly, the temperature will be felt very high, so as readily to bring out perspiration; but the instant we come abreast of any of the streets at right angles, such as the Piazza St. Trinita, or the Vigna Nuova, we are stricken by an icy current of air, the more injurious, from the open state of the pores and the sudden transition of the temperature. On the other side of the Arno it is permanently more cold, and when the Sirocco prevails, we are exposed to currents of that debilitating and suffocating wind at the crossings of streets—but these are not dangerous. From whatever point of the compass, however, the breezes blow—along whatever street they sweep, even in this pride of Italian cities—they carry on their wings, not 'airs from Heaven,' but 'blasts from Hell,' saturated with reeking vapours from—all 'UNUTTERABLE THINGS.' Mr. Eustace tells us, indeed, that Florence is 'airy, *clean*, and sometimes rising towards grandeur.' I deny the second assertion, and I appeal to ocular demonstration, not merely in obscure streets, but throughout every piazza and square in that great capital. Let the traveller walk, for instance, through the PIAZZA ST. MARIA NOVELLA (the largest in Florence) in the middle of day, and let him halt before the obelisk in its centre. He will there see what I shall not describe. If not satisfied, let him repair to the PIAZZA DEL DUOMO itself, and there contemplate the *Pagan sacrifices* that are offered up along its sacred walls in broad noon-day! Nay, I assert that the 'gates of Paradise,' as Michael Angelo styled

the portals of the Baptistery, are unsafe to enter, unless we afterwards have recourse to the 'holy water' in the FONT, to purify our bodies as well as sanctify our souls. Look at the PALAZZO PITTI, the residence of royalty. It is very gloomy and very grand. The bayonet keeps its walls undefiled. But turn down into any one of the streets that lead from that splendid palace towards the banks of the Arno, and the *unaccustomed* eye will revolt from the accumulations of filth and corruption that every where present themselves! Such are the scenes wherein the young gentry and nobility of England are to form their taste, polish their manners, refine their senses, cultivate their understandings—and *finish* their education!" 93.

XI. THE VENUS DE MEDICIS.

"The TRIBUNE (the sanctum sanctorum of the gallery) is wisely reserved by the custodes for the last exhibition in their Sysiphean occupation. I entered it the first day, without knowing where I was going. The VENUS DE MEDICIS instantly told me I was in the presence of beauty personified. Her averted look certainly indicates, according to my impression, some degree of shame, or even denial. When we advance and turn to the right, so as to command her countenance, I fancied that I could perceive a triumphant if not a sarcastic smile, playing on features that are mellowed rather than faded by TIME. The position of the hands is more artful than honest—pointing to, rather than concealing what female modesty has veiled from observation.

'Ipsa Venus pubem, quoties velamina ponit,
Protegitur læva semi-reductâ manu.'

This charmer has been called the MADONNA DELLA CONFORTA, for ladies of low stature, and a certain or rather *uncertain* age—being herself under five feet in height, and some three centuries on the wrong side of the Christian æra, in years. Time has embrowned her complexion; but her FIGURE remains the admiration of the world. It may appear somewhat paradoxical to say that, the whole form is perfection, though many of the principal parts are faulty. The critics have determined, among other blemishes, that the head and the hips are too small—that the nose and the hands are too large—that the fingers are like marlin-spikes, and have only one joint among ten of them. The diminutive head would not have been of much consequence, had not the phrenologists, with their callipers, ascertained that the owner of the head was an idiot! Well! This would not much diminish the number of her admirers. Praxiteles or Cleomenes was not so silly as to give VENUS as much brains as MINERVA. It is not necessary—it is not desirable, that a BEAUTY should be a BLUE-STOCKING. What did SAPPHO gain by her towering intellect and tender lyrics? Not a husband certainly, unless under the Ægean wave!

Say lovely youth that do'st my heart command,
Can Phaon's eyes forget his Sappho's hand?

No truly! Phaon remembered her *head* as well as her hand, and kept at as respectful a distance from the tenth Muse as a butterfly BEAU does from a literary BELLE, of the present times.

But then the pelvis is not so broad, nor the rump so prodigious, as among the Hottentot Venuses of our own day. This is true. The poor VENUS DE MEDICIS had not a Parisian milliner to exaggerate the *deformities* of Nature. Yes, the *deformities* of Nature! Unless the critic is prepared to maintain that black and white are the same colour—that great and small dimensions are of the same admeasurement, I do assert that Nature, for wise purposes, has imposed a tribute of deformity on the beauty of the female sex, which, it is the duty of the sculptor and painter to diminish, in beau-idealism, rather than exaggerate. Praxiteles, Cleomenes, or whoever it was that sculptured the Medicean Venus, acted judiciously in diminishing the size of the female pelvis, the dimensions of which, however,

useful for the perpetuation of the human race, can never be pleasing to the eye of the spectator. I could illustrate this position, and demonstrate that NATURE does not always study symmetry and proportion in her formations or operations; but I think it unnecessary. The most beautiful female figure, in youth and in health, differs totally in the course of a few months. Poets, painters, and sculptors, have taken care to delineate but one side of the portrait." 106.

XII. EFFECTS OF ITALIAN MALARIA.

"A glance at the inhabitants of malarious countries or districts must convince even the most superficial observer, that the range of disorders produced by the poison of malaria, is very extensive. The jaundiced complexion, the tumid abdomen, the stunted growth, the stupid countenance—the shortened life, attest that habitual exposure to malaria saps the energy of every bodily and mental function, and drags its victims to an early grave. A moment's reflection must shew us that FEVER and AGUE, two of the most prominent features of the malarious influence, are as a drop of water in the ocean, when compared with the other less obtrusive, but more dangerous maladies that silently but effectually disorganize the vital structures of the human fabric, under the operation of this deleterious and invisible poison. Yet the English traveller or sojourner in Italy knows little, if any thing, respecting these slow and masked underminings of his health, and thinks, if he escapes the malaria fever of July and August, he has nothing more to dread, but every thing to enjoy, throughout the year. Fatal mistake! The foundation of chronic maladies, that render life miserable for years, is every Summer laid in hundreds of our countrymen, who wander about beneath the azure skies of Italy. They bring home with them a poison circulating in their veins, which ultimately tells on the constitution, and assumes all the forms of Proteus, harassing its victim with a thousand anomalous and indescribable feelings of wretchedness, inexplicable alike to himself and his physician. It is the attribute, the character, of all malarious disorders to be slow in their developement, when the poison is inhaled in a dilute state, or only for a short time. Many of our soldiers did not feel the effects of the Walcheren malaria, till months, or even years, after that fatal expedition. So our countrymen in India often go on for years in tolerable health, after exposure to malaria, before the noxious agent shews itself in the disturbance of certain functions of the body. The same thing is seen even in England, though on a smaller scale. Those who inhabit marshy or damp situations become sooner or later affected with some of the Proteiform maladies engendered by malaria, though they are seldom understood, unless they happen to take on a regular aguish character.

Two causes have a marked influence in deranging the biliary and digestive organs—solar heat and terrestrial exhalations. Either is equal to the production of the effect; but, when combined, the agency is most potent. Thus, in India and other tropical climates, when a high range of temperature combines with marsh miasmata, liver and bowel-complaints are sure to result. And, under the most favourable circumstances, although hepatitis or dysentery may be evaded, the organs of digestion are sure to suffer in the end; and the melancholy catalogue of dyspeptic, bilious, and nervous complaints is the portion of the tropical sojourner. Now Italy, in Summer and early Autumn, is nearly as hot as the East or West Indies, and is the very throne of malaria. She has also the additional disadvantages of the sirocco and tramontane winds—or, in other words, vicissitudes of temperature, great and sudden, beyond any thing which we witness even under the Equator. What are the consequences? Malarious fevers;—or, if these are escaped, the foundation of chronic malarious disorders is laid, an ample provision for future misery and suffering!" 125.

XIII. COLISEUM.

"Of all the monuments that now exist to attest the decline and fall of the Roman empire, this is the most stupendous;—and, could it be dissociated, in the mind, from the causes which gave it birth, or the cold-blooded hideous barbarities which it exhibited, it would be the most majestic, even in its ruins. But the springs of action are more philosophic objects of contemplation than the mere machinery by which these are brought into operation. In the early years of a state, as in those of an individual, the sensibilities, though keen, respond only to natural impressions. But as time rolls on, as wealth accumulates, as luxury prevails, and as virtue decays, the sensibilities become not only blunted, but perverted—wholesome stimuli cease to call forth the usual, or at all events, the desired excitement—and then nature is outraged in every possible way. Such was the condition of the Romans, when the manly, or at least the innocent, contests of the circus, and the fictitious sorrows of the stage became insipid—and yon gigantic structure rose, arch over arch, and order over order, Titan-like, to scale the heavens; or, rather, to usurp the privileges of the gods, in receiving the incense of slaughtered victims—in breathing the odour of human gore, jetting in crimson fountains from a thousand pierced and palpitating hearts.

To feast their eyes on the mangled and quivering members—on the reeking entrails of man and animals—to view, with exquisite delight, the murderous conflicts of the ensanguined arena, hither flowed daily the impetuous tide of human existence, the lords of the creation, the venerated, the god-like Romans! Here took their allotted seats, the sceptered prince and laurelled consul—the war-like knight and solemn senator—the haughty patrician, and factious tribune—the vestal virgin, and stately matron—the tuneful bard and grave philosopher. These and countless multitudes of Roman citizens and Roman rabble, rushed daily to yon gorgeous structure—all for the sake of that EXCITEMENT which simple or innocent pleasures could no longer elicit!

Yes! and when the wounded gladiator fell before the superior force or fortune of his fierce antagonist, and sued for life—when the victor poised in air his gory falchion, and looked for the signal of mercy or murder—these polished Romans—the fair-sex themselves, vestals, maidens and matrons, held up their hands for BLOOD; nor would they forego the poignant pleasure of seeing the reeking steel plunged into the vitals of a fellow-creature!* Such was yon colossal slaughter-house, where every ferocious animal that roamed the wilds or haunted the rivers of Asia, Africa, and Europe, was conducted to view, as well as to encounter, with horror and astonishment, the still more ferocious animal—man.†

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* "'Two aqueducts were scarcely sufficient to wash off the human blood which a few hours *sport* shed in this imperial shambles. Twice in one day came the Senators and Matrons of Rome to the butchery: a virgin always gave the signal for slaughter, and when glutted with blood-shed, those ladies sat down in the wet and streaming arenæ to a luxurious supper.' Who would expect that Cicero should not only defend, but warmly commend gladiatorship! 'Oculis nulla poterat esse fortior contra dolorem et mortem disciplina.' If this diabolical insensibility to scenes of blood and murder was expected to rekindle the valour of the degenerate Romans, the expectation was most woefully disappointed! The horrible and debasing inference of Cicero, indeed, is negatived by the examples of ancient Greece and modern Europe. Compare the heroic retreat of the ten thousand Greeks with the shameful flight of Julien's Roman legions from the banks of the Euphrates."

† The licentious and blood-thirsty Romans did not always enjoy these sights with impunity. When the Emperor Probus was preparing for his triumph, nearly three hundred years after the birth of Christ, fourscore desperate gladiators, out of

Erected by a Pagan—purged of its inhuman rites by a Priest—and propped in old age by a Pope—the Coliseum shadows out some faint emblematical picture of Rome itself. It was once the stormy theatre of bloody deeds—it is now the peaceful asylum of holy crosses. Part of it still stands erect, or renovated; part of it totters over its base; but the greater part has vanished. Eloquent in its silence, populous in its solitude, majestic in its adversity, admired in its decay, the ruins of the Coliseum, like the remains of Rome, excite the curiosity of the antiquary—the ruminations of the moralist—the zeal of the Catholic—the admiration of the architect—the sigh of the philanthropist—the sneer of the cynic—the humiliation of the philosopher—and the astonishment of all." 144.

XIV. ITALIAN CHARACTERISTICS.

"The external physiognomy of Italy, as well as of her great cities—and even of her inhabitants, presents more prominent features and singular contrasts than any other country or people in the world. Bernardine de St. Pierre informs us that all contrasts produce harmonies—and hence, perhaps, it is, that Italy is the land of music and of song. There is poetry—or the materials of poetry, in every thing which meets the eye between the Alps and Mount Ætna. Her skies are azure and her hills are green—the sun-beams are ardent, the moon-beams mellow, the stars brilliant—the breezes are alternately delicious and malarious—iced by the Alps, or ignited by the Sirocco—her mountains are lofty, and her streamlets are clear—her rivers are rapid, and her lakes are smooth—her shores are laved by tranquil seas, her hills are shook by hidden fires—the country is rich, and the people are poor—the fields are fertile, while their cultivators are squalid and unhealthy—men and women sew the seed; but saints and angels reap the harvest—the vines are graceful, the grapes luscious; but the wine is too often sour—the roads are magnificent, while the inns are wretched—the country swarms with priests, but is destitute of religion—teems with redundant population where celibacy is the CARDINAL VIRTUE—glitters with gems and precious stones in the midst of penury and starvation—exhibits despots on the plains, and bandits in the mountains—abounds in all the materials of wealth and power, but possesses few flourishing manufactories, except those of monks, music, and maccaroni. In fine—the nobility is sunk in sloth, the church in plethora, the populace in pauperism!" 171.

XV. PASSAGE OF THE PONTINE FENS.

"'Et quos pestifera Pomptini uligine Campi.'

"The brigand-looking groups of Velletri proved as harmless as the mountaineers of Tuscany—we safely descended to the marshes—and were soon in sight of the TORRE DE TRE PONTI, where we observed, at some distance, the squalid caliban borderers collecting wild beasts from the fens, and beating as well as swearing them into office, as post-horses, for our accommodation!

Four of these savage and unseemly creatures being pinioned to the large, and two to the small carriage, away they flew—kicking, flinging, plunging, and snorting—curvetting in fitful and fearful sallies from side to side of the road—one moment within an inch of dashing us to pieces against the trunk of an elm or a poplar—the next, within an ace of hurling us headlong over a perpendicular bank into the yawning canal below—keeping us

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600 who were reserved for the inhuman sports of the Coliseum, disdaining to shed their blood for the amusement of the populace, broke from the place of their confinement, and filled the streets of Rome with slaughter and confusion. They were overcome at last; but not before they avenged their fraternity by torrents of blood in the Eternal City.

in perpetual and not the most agreeable suspense, between a broken neck and a watery grave! Thus we darted across the Pontine Fens, with little less velocity than that of an arrow from a bow—traversing a space of 28 miles (nearly the distance between London and Chatham) in two hours and forty minutes—a *journey* which, in the Augustan age, and in the pride of the VIA APPIA, occupied Horace during sixteen tedious hours, while listening to the croaking of frogs, the brawlings of boat-men, the maledictions of muleteers—the buzzing of gnats—

Mali culices ranæque palustres—

and what was far worse, while submitting to the depredations on personal property inflicted by those douaniers of antiquity, the bugs, the fleas—and a certain animal—

Quod versu dicere non est." 194.

XVI. DRIVE TO POMPEII.

"If a stranger were to arrive at Naples, by sea, and that for the first time, in the month of November or December, he would be apt to form a very erroneous idea of the climate, according to the point from which the wind blew. If it came from the SOUTH, he would be inclined to think that there was little difference between Naples and the black-hole of Calcutta. If from the NOTH-EAST, he would begin to doubt whether he had not sailed in the wrong direction, and made the Gulf of Finland, instead of the Gulf of Salerno. If a gentle North-West zephyr skimmed the surface of the deep and wooed the shores of Baiæ, he might be tempted to think that he had got into the gardens of the Hesperides, or the isles of Atlantis, so green is vegetation, so balmy the air, so mellow the sun-beams, and so azure the skies!

YESTERDAY, the SIROCCO—'Auster's sultry breath'—steamed over Naples, depressing the animal spirits and the vital energies to the lowest ebb. It is impossible to convey in words any adequate idea of the sedative effects of this wind on mind as well as body. I tried to respire in freedom on the roof of the Vittoria—on the Chiaja—the Mole—the Chiatomone; but found no relief from the nervous depression and muscular languor induced by this mephitic composition of rarified air and aqueous exhalation. I hired a calessino and drove round the promontory of Posilipo—and afterwards ascending to the airy castle of ST. ELMO, wandered through the beautiful church of ST. MARTINO—but all in vain! From lassitude of body and dejection of mind there was no escape, while this accursed blast prevailed.

TO-DAY, started at sunrise, in an open barouche, for POMPEII, under the chilling influence of a TRAMONTANE, or North-easter, that came down in piercing gusts from the Apennines, more cutting and keen than the winds that sweep along the Winter snows of Siberia. In passing through PORTICI, I could scarcely help envying as well as pitying the LAZZARONI, stowed in rows, like sailors' hammocks, along the sunny sides of the streets, sheltered from the blast, and basking in the rays of a glorious luminary.

As the carriage rolled rapidly over the volcanic grave of HERCULANEUM, hollow murmurs echoed from the chambers of the dead beneath; while fancy assimilated these melancholy sounds with the dying groans of its entombed inhabitants, when the terrific surge of boiling lava curled for an instant against the ramparts, and then swept, with relentless fury, over the devoted city! No sight—no idea is so agonizing to the human mind, as that of protracted torture and lingering death. Fortunately for the Herculaneans, their sufferings were momentary, and instant destruction released them from the horrors of the scene! The nature of the fatal torrent which inhumed Herculaneum, and filled every crevice with solid stone, will probably prevent its ever being excavated." 207.

XVII. STATE OF MORALITY AMONG THE POMPEIANS.

"That a lady's work-box or flower-stand should be supported by pedestals of curious

or elegant workmanship, no one can object; but if we find these pedestals moulded or carved into the most disgusting and obscene figures which a depraved imagination could invent, are we not authorised to conclude that the female mind was corrupt and rotten to the very core? Those who have examined the penetralia of the MUSEO BORBONICO—nay, those who look at the drawings made by order of the CHANOINE JORIO himself, must confess that this picture is not overcharged! The same depravity is too often seen to pervade every kind of female ornament—the necklace, the ear-rings, the bracelets, the amulets—every object, in short, on which the female eye was accustomed to repose!

But however humiliating is the picture of female *indelicacy* (not to give it a coarser name) that of the male sex very far surpassed it, and ran into the grossest BESTIALITY. Will it be believed that a MAN, before his own death, or his FRIENDS, after that event, should have employed sculptors for months, or years, in *decorating* the marble sarcophagus in which the lifeless corpse was to repose, with the grossest emblems and representations of revolting obscenities and crimes! Such, however, is the fact—and this fact alone is damning proof enough of the state of depraved feeling in which the Roman mind was sunk at the commencement of the Christian æra." 214.

XVIII. PASSAGE OF THE PONTINE MARSHES BY NIGHT.

"We started from Terracina, a little before sunset, in a carriage very badly calculated for four, but compelled by the villainous courier of the Pope (for which I hope he has never received absolution) to hold an additional passenger, in the shape (if shape he had) of his own pot-bellied son, besides baggage and luggage enough to load a caravan. Nothing but the philosophy of observing the Pontine Marshes at night, could have induced me to bear, with any degree of patience, the infernal breath of the father and his urchin, between whom I voluntary placed myself to give the invalids all the accommodation which their health and sufferings required. But patience has its bounds, and at the end of the first stage I got on the outside of the coach, rather to breathe the deleterious gases emitted from the fens, than inhale the mephitic airs generated within this infernal cauldron. The atmosphere was still as the grave—the moon shone faintly through a halo of fogs—and a dense vapour rose in all directions around us, emitting the most strange and sickly odour which I ever experienced on any part of the earth's surface. Under other and ordinary circumstances, I should have felt some alarm at thus exposing myself to the full influence of nocturnal emanations from the deadly marshes over which we were passing; but a consciousness of the life which I had led for three months, inspired me with complete contempt for any morbific influence which air or earth could direct against me. I crossed the fens in this philosophic mood, while the courier of St. Peter kept the windows of the coach closely shut against the dangerous malaria of the night. I would not advise others to imitate this rash conduct on my part. Many have paid dearly for their curiosity—and myself among the rest—if not on this, on various other occasions.

———— Video meliora proboque
Deteriora sequor!" 219.

XIX. PASS OF THE BRACCO.

"Our afternoon's journey, from Borghetto to Sestri, was over the BRACCO, an Apennine pass, little inferior to the Simplon in height, in distance, and in majestic scenery. The ascent is twelve miles, and the descent on the other side is eight miles. The village of Mattarano, like the village of the Simplon, is near the summit—and four miles beyond this forlorn cluster of human habitations, and at the highest point of elevation, is a place of refuge in case of snow-storms. The road, which is excellent, winds along terrific precipices at one time, and, at another, is overhung by the most horrifying cliffs and crags on which human eye ever ventured to gaze. Any one of the hundred jutting masses of

marble that hang suspended, a thousand feet high, over the traveller on this route, would, if disrupted, overwhelm a whole city! The aspect of the mountains all around is wild and savage beyond description, or even imagination—and the loneliness of this desert, (for scarcely a human creature met our eye) for twelve or fifteen miles, adds to the solitude, the silence, the gloom—and yet to the sublimity of the scene! Painters, poets, and romance-writers would find ample materials for contemplation and study between Pisa and Nice—and the Mountain of BRACCO would furnish them with a scene of the TERRIFIC at any time. And not of the terrific only! for it is from the highest and wildest part of its summit that, all at once, the Bay of RAPALLO, little inferior to that of Spezzia, with all its romantic shores, bursts on the view, awaking the most pleasant sensations by contrast with the gloomy horrors of the mountain—and by giving assurance that we have only a rapid descent of eight miles to the end of our journey, and comfortable refreshment in an excellent inn."* 232.

XX. CHARACTERISTICS OF THE NEW ROAD FROM GENOA TO NICE.

"The route from Genoa to Nice is equally interesting, as that between PISA and GENOA, though exhibiting a very different cast of scenery. Were I to attempt a short graphic sketch of its more prominent and characteristic features, to which nothing but the pencil of a Linton, however, can do justice, I would say that, the broad, the blue, the boundless, and the tideless Mediterranean; here chafing against the wave-worn rocks, there murmuring on the golden sands, always in view, always in close proximity, forms the grand and glorious feature of the prospect, on one hand, to which the eye repeatedly turns for refreshment, and on which the imagination loves to roam, as well as to rest. On the other hand, and in magic contrast, Alps and Apennines rise in every variety of form, capped with everlasting snows, girdled with mighty forests, and based with perennial verdure. Between these majestic scenes, the towns and villages, white as Parian marble, are seen stretched in lengthened curves along the sinuosities of the bays; perched in irregular clusters on airy cliffs; or clinging, in fearful suspension, on the precipitous descents of the hills. The road now steals, in quietude and smoothness, along the very verge and level of the placid ocean—now creeps up the forbidding acclivity of a rugged steep, in slow and labouring zig-zags—winds along the furrowed brow of a lofty mountain—dives through the solid marble, and emerges on the edge of a giddy precipice, a thousand feet perpendicular above the murmuring surge, on one side; a thousand feet beneath overhanging and gigantic masses of rock on the other. Anon, the road strides, arch upon arch, over a frightful chasm, or impassable ravine—descends, by tortuous but gentle windings, the horrid steeps of a wild, a gloomy defile—and loses all trace of its existence on the broad and rugged bed of a mountain torrent." 242.

XXI. CLIMATE OF ITALY.

"Italy, indeed, is very singularly situated in respect to climate. With its feet resting against the snow-clad Alps, and its head stretching towards the burning shore of Africa, it is alternately exposed to the suffocation of the sirocco, from the arid sands of Lybia, and the icy chill of the tramontane from the Alps or the Apennines. The elevated ridge of

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* "There can scarcely be imagined a more appropriate scene for robbery and assassination, than the pass of the BRACCO. Travellers might here be shot or felled to the ground by hands unseen among the over-hanging crags; and when pillaged, their bodies might be hurled over precipices beyond all human search! Yet here are no guards—no patrole—and no more danger than between Dover and Canterbury!"

mountains that bisects the whole of Italy longitudinally, operates powerfully in modifying her climate.

Against the summits of this rugged and lofty chain of Apennines the sea-breeze that has swept the Mediterranean or even the Atlantic Ocean, on one side, or the Adriatic on the other, strikes often with great violence; but is, on the whole, impeded in its course—more especially the lower strata of air—hence the stillness of the atmosphere so remarkable at ROME and many other parts of the western plains and valleys of Italy. This stillness is by no means advantageous, in point of salubrity, to a country where deleterious exhalations are hourly issuing from the soil in the Summer season, and which are dissipated by winds and concentrated by calms. Thus, then, this Apennine ridge affords no protection from the chilling blast of the Alps, or the enervating sirocco of Africa; while it diminishes the utility, by obstructing the current of the sea-breezes, from whatever point they may blow. But the Apennines themselves, when they annually resume their caps of snow, become the source of most piercing and cutting winds, more chilling than those from the Alps, on account of their greater proximity to the plains. The Apennine, therefore, is one of the agents which produce those excessive transitions of temperature, to which the atmosphere of Italy is subjected."

"From the relative situation, then, of the Alps, the Apennines, and the sands of Africa, it may be said that almost every breeze in Italy comes over a volcano or an iceberg—and, consequently, we are alternately scorched by the one and frozen by the other.

There is a vast difference between the *variability* of climate in England and in Italy. In England, the changes (barometrical, thermometrical, and hygrometrical) are very *frequent*, but they are also very *limited in their range*. In Italy, it is just the reverse—the transitions are *not* very frequent; but, when they do occur, the range is often most extensive. Now the *frequency* of alternations in England, and the moderate range of these alternations, are the very circumstances which render them comparatively innocuous. We have cloud and sunshine, heat and cold, winds and calms, drought and rain, twenty times in one day at home; but the British constitution becomes inured to them, and safely so, from the rapidity of their recurrence and the limitation of their range. Nay, this perpetual scene of atmospheric vicissitudes not only steels us against their effects, but proves an unceasing stimulus to activity of body and mind, and, consequently, to vigour of constitution."

"If, thermometrically speaking, we say that the Summer heat of the Italian valleys, approaches the temperature of the tropics*—while the tramontane blasts of Winter depresses the mercury as much as a Caledonian North-easter—we convey a very inadequate idea of the *feelings and the physical effects* occasioned by these opposite conditions of the atmosphere in Italy. I have alluded to this subject, under the head of Naples, and also on the journey from Genoa to Nice. The thermometer, in fact, is no index or criterion of our feelings under the influence of the SIROCCO and TRAMONTANE. The *former* appears to suspend, exhaust, or paralyze the nervous energy of the body, and the sensorial vigour of the mind; both of which fall prostrate beneath the flood of enervating steam engendered by the aerial current sweeping over burning sands and evaporating seas. The *latter*, or tramontane, comes down from the Alps or Apennines, with such a voracious appetite for caloric, that it sucks the vital heat from every pore—shrivels up the surface of the body—impels the tide of the circulation, with great violence, upon the internal organs—and endangers the lungs or whatever other structure happens to be weakest in the living machine."

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* "Dr. Clark states the mean temperature of the Mediterranean generally, in the month of August at 80° Fahrenheit, which is very little less than the mean annual temperature of the Indian Ocean."

"The very circumstance, in short, which forms the charm, the attraction, the theme of praise in the Italian climate, is that which renders it dangerous, because deceitful—namely, the *long intervals of fine weather between vicissitudes of great magnitude.* This is the bane of Italy, whose brilliant suns and balmy zephyrs flatter only to betray. They first enervate the constitution; and, when the body is ripe for the impression of the TRAMONTANE, that ruthless blast descends from the mountains on its hapless victim, more fierce and destructive than the outlawed bandit on the unsuspecting traveller!

Italy boasts much of the dryness of her climate. In some places, as at Pisa, there falls as much rain as in Cornwall. In Rome, about one-third less of rain falls than at Penzance, and the number of rainy days is one-third less—being about 117 in the year. This is a poor counterbalance for the *steam* of the Sirocco, and the oppressive stillness of the Roman air. The fogs of England and its cloudy skies furnish constant themes of querulous complaint; but they would be rich treats in Italy, as defences against the torrents of liquid fire that pour down on her vales from a nearly vertical sun in Summer. As rains fall in Italy more seldom than in England, they make up for this infrequency, by precipitating themselves in cataracts, that form mountain torrents which overflow their banks, flood the plains, and saturate every inch of ground with humidity. The deluge over, a powerful sun bursts forth, and rapidly exhales into the air, not only the aqueous vapour from the soil, but the miasmata generated by the decomposition of all the vegetable and animal substances which the rains have destroyed, the floods carried down from the mountains, or the gutters swept out of the streets. If these exhalations rise into the air perfumed with the aroma of ten thousand odoriferous shrubs, breathing their balmy influence over the face of a smiling landscape, they are not the less, but the more dangerous on that account.

Northern strangers, and more especially INVALIDS, unaccustomed to an azure sky and a genial atmosphere in the depth of Winter, sally forth to enjoy the glorious sunshine or resplendent moonlight of Italy—and, like the Grecian shepherds—

> ————Exulting in the sight,
> Eye the blue vault, and bless the cheerful light!

But they have, too often, reason to curse, in the sequel, the seductive climate of this classic soil, which mingles the poisonous miasma with the refreshing breeze, and thus conveys the germ of future maladies on the wings of fragrant Zephyrs." 262.

We had intended to exhibit a series of specimens from the third part of the work, on the medicinal and the moral influence of Italian skies and voluntary expatriation; but the extracts already introduced have run further than we expected, though compressed by means of the smallest type. We have given enough to enable the reader to form some idea of this little volume, the intention of which is to combine utility with amusement, on a journey in search of health; but more especially to put medical men, as well as their patients on their guard against incautious embarkations for a foreign climate in various diseases, which are more frequently exasperated than remedied by such procedures.

Periscope;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

Auscultation the only Unequivocal Evidence of Pregnancy. By Dr. Ferguson, A.M. M.B., Dublin.*

Such is the rather equivocal title of a paper of some length in the Dublin Medical Transactions. We all know that the signs of pregnancy, though usually distinct, are occasionally doubtful, if not absolutely fallacious. There are few medical men of any practice, who have not been at one time or other deceived. The discovery of an infallible, or certain sign is confessedly a desideratum. Many of our readers are aware no doubt that Laennec alludes to the employment of the stethoscope in the detection of pregnancy, and some will probably smile on the occasion. The signs detected by auscultation are two: the 'bruit placentaire,' and the pulsations of the fœtal heart. They are seldom observed before the fifth month, and seldom fail to be recognized by an accurate observer after it. The 'bruit placentaire' should be sought for in either iliac region, though Dr. Ferguson avers that he has found it in almost every point of the abdomen. He thinks it is nothing more than the bruit de soufflet in the arteries connecting the placenta to the uterus. The Doctor has heard the fœtal heart in almost every region of the abdomen. Though it and the placenta are sometimes heard on the same side, and have even been found on the same spot, yet in the majority of cases they are met with at opposite sides, generally in the iliac region. The fœtal heart, unlike the placenta, is not always heard in the same place in the same individual; that is, it may be found to-day in one point, to-morrow in another, though Dr. F. has never observed it to vary far from the point where first heard. Its double beat is well marked, and the frequency of its pulsations almost always greater, often double that of the mother's heart. In one case, however, the fœtal heart was distinctly heard to beat only 28, the mother's being 100, and there was an irregularity in its rhythm. The following is a curious instance of that talent for minute stethoscopic observation which appears to characterise Dr. Corrigan and some others in Dublin.

"A goat had been procured for a very different purpose by Doctors Hunt, Corrigan and myself, and bound on its back on the operating table. I casually applied the stethoscope to its abdomen, without the slightest previous knowledge of its pregnancy, and was surprised to detect almost immediately the distinct double pulsations of a fœtal heart. My two friends, to whose accuracy of observation I have been often indebted, satisfied themselves perfectly of the fact, and on examining the uterus about an hour afterwards, we extracted a fœtus, of which the minute preparation which I now offer was the heart. On enquiring from the person who sold us the goat, on whose accuracy we could depend, we learned that it was exactly seven weeks from copulation."

It requires nice ears, we should opine, to count with the precision of a pendulum the double pulsations of a fœtal heart, 'the size of a hazel nut," in the belly of a goat bound

* Dublin Med. Transactions, Vol. I., Part I.

upon a table. We quite envy Drs. Corrigan, Hunt, and Ferguson. With the following statement, which deserves attention, we proceed to one of Dr. Ferguson's cases.

"I would beg leave to state, that for the last three years I have been in the habit of examining by the stethoscope every pregnant woman who presented herself, under any circumstances, at either of the public Institutions to which I am attached. I have thus had opportunities of testing the value of mediate auscultation in such cases above one hundred times, and in every instance, with but one exception, I could detect either pulsation of the fœtal heart or placentary noise, generally both, after the patient had passed the fifth month of gestation, and in many, indeed the majority, before that period. In the individual case which I have excepted, I could detect neither the one nor the other; however, I had no opportunity of making a second examination, which should never be omitted in doubtful cases, nor of learning whether the child might have been dead or not; for the woman, contrary to her promise, never returned to me. I should also remark, that in not more than eight or ten cases did I find it necessary to remove the usual clothes of the patient from beneath the instrument, leaving only the chemise between it and the abdominal parietes; nor to oblige them to assume the horizontal position, which is decidedly more favorable to an accurate examination than the erect or sitting. My usual practice has been to examine them seated on a chair, and without the removal of any part of their dress. *I am well aware that others, who may have made frequent trials, have not been so fortunate in detecting these phenomena:* this is not for me to attempt to explain nor contend about; my sole object is to state facts which I have myself observed, and only claim, what I hope I shall obtain, credit at least for veracity."

Case. In December, 1828, Dr. Ferguson met an eminent general practitioner in consultation, on the case of the daughter of a respectable shopkeeper. Her apparent disease was ascites. She stated that her ailments had been of twelve months standing; that during that time her abdomen had been occasionally enlarged, though more permanently so of late; and that remedies had produced the most beneficial effects, all of which was confirmed by her mother. The agitated manner of the young woman, and the peculiar shape and solidity of the belly roused Dr. Ferguson's suspicion. Not having a stethoscope with him, he used a roll of paper, and with much difficulty and embarrassment succeeded in discovering the pulsations of the fœtal heart. The announcement of the diagnosis surprised the practitioner, who continued incredulous till an accouchement dispelled all doubts.

We need not pursue the subject farther, though our readers might be pleased with samples of the eloquence displayed on the occasion by Dr. Ferguson. We may here make an observation which has struck us forcibly on perusing more than one paper in the present Transactions of the Dublin Physicians. The verbiage in almost all the memoirs is astonishingly great, and never did we witness facts more buried beneath it. If the case of a young lady is described, we are let into some of the family history, informed that the father is of an economical or liberal turn, that the Doctor got or did not get fees. In Dr. Ferguson's memoir, the cases are recited in a tragic or comic style, and a fact that might have laid in as small a compass as the heart of a fœtal kid, is dilated and diluted into some goodly octavo pages. We must also remark that, in these Transactions, a vast deal of eloquence is thrown away upon nothing. If a stool is to be described, it is done in language more florid than the most bilious evacuation ever procured by calomel. We know that this generous warmth of expression is said to be more peculiarly characteristic of our countrymen of the Emerald Isle; but however delightful it may be in works of imagination, or the harangues of the lawyer and the senator, we conceive that it is out of place in sober discussions. We trust that this hint will be taken in good part.

II.

PROFESSIONAL MORALITY IN 1831. 8vo. pp. 80, Wilson, March, 1831.

WE question the wisdom or the utility of this pamphlet, though we acknowledge that it is well written, and satirizes quackery in strong language. But quackery will flourish to the end of time—at all events, to the end of our time, in the present generation. While there are fools to believe the assertions of charlatans, there will be always abundance of the latter to fleece the public and enrich themselves, no matter what be the consequences of their empiricism. But when regular practitioners appeal to the public against the unprincipled empirics, the public are illiberal enough to suspect their motives, and attribute their hostility to jealousy. On this account we distrust the policy of public appeals against charlatanism. We have another objection to the present publication, namely, its reflections on the medical profession generally and specially—particularly the latter. On reflection, the author will be inclined to omit, in future, such passages as the following.

"Look at much of the GENERAL PRACTITIONER's conduct in the present day, and say, is it not, in its spirit and its objects, sheer quackery? Look at the thousand plans by which he endeavors to puff himself into notoriety. See the manner in which he manœuvres his course into new families—analyze the spirit with which he labels his draughts and makes out his bills—watch his anxiety to dispose of so much medicine in so many hours—question him on the seat or nature of nine-tenths of the diseases he attends, and of the philosophy of the treatment which he is pursuing for their removal—and, if my censures prove too severe, I shall be most happy in finding that I have calumniated those whom it is the object of these remarks to elevate beyond the mere art and grocery of their profession."

Now, while we must admit that there are too many individuals in every class of the profession, whose necessities or inclinations tempt to practice trickery and quackery in their avocations, it is not liberal to stigmatise one particular branch in such terms as the above passage conveys.

After these few remarks on the pamphlet before us, it is hardly worth while to contradict a general but most unfounded rumour that the Editor of this Journal is its author. He never wrote a line of it—nor has he the slightest knowledge of the writer.

III.

NOTHING NEW UNDER THE SUN. DR. BARRY'S THEORY OF THE VENOUS CIRCULATION.

[We received the following anonymous communication by the post.]

TO THE EDITOR OF THE MEDICO-CHIR. REVIEW.

Sir—I beg leave to refer you to Huxham's work 'de Aëre,' &c., Vol. I., pages 7th and 8th of the Prolegomena, where you will find something respecting the influence of atmospherical pressure on the circulation, tending to shew that Dr. Barry's *discoveries* on this subject, are not altogether so original as many indulgent critics, notwithstanding their profound erudition, have shown themselves willing to allow. Perhaps on no occasion was it ever more à propos to reiterate the saying of Solomon, that 'there is nothing new under the Sun.'

Φιλαληθης.

On referring to Huxham's work, we found, sure enough, Dr. Barry's doctrine laid down in language the most unequivocal, as the following passage will shew.

HUXHAM.

"Sanguinis ideo momentum adjuvat assidua *atmosphereæ* pressura, more velut *antagonistæ* agens contra vim cordis insitam et validè constringentem, quod plus, minusve, omni sphincteri musculo proprium est. Cùm primùm enim, *ope inspirationis*, explicatus pulmo locum dat expellendo è

corde sanguini; facto nempe in ductibus pulmonum sanguineis momentaneo *quasi vacuo*, continuo in cor dextrum *impellet sanguinis quantum facile capit pondus atmosphereæ, totum corporis habitum comprimens semper.* Eodem porro ipso momento irruens, undeque premens, et elasticus aer haud exiguum addit impetum rapidissimis, per pulmonem currentibus, sanguinis rivulis, ejusque momentum tantum ad auget, ut vel vim cordis sinistri subigere possit: longé enim longeque velocius currit sanguis per pulmones quam per aortæ ramulos."—HUXHAM.

We shewed the passage to Dr. Barry, who expressed equal surprise and pleasure at the coincidence—the perfect and complete identity, in fact, of doctrine entertained by Huxham, from reasoning, but proved by Dr. Barry in numerous experiments. This last difference is so great, that we have no hesitation in giving Dr. Barry all the credit of originality—since he declares, and we fully believe him, that he never saw the passage in Huxham, till we shewed him it. We are much obliged to our unknown friend PHILALETHES.

IV.

CASE OF INTERMITTENT GASTRO-ENTERALGIA. By M. LABORDERIE, M.D.

THE narrator of this case was a stanch disciple of Broussais; but, like many other disciples of great masters, was rather puzzled by the facts that presented themselves at the bedside of sickness!

Case. A young medical gentleman, aged 24 years, of nervous temperament, and subject to dyspepsia, had the imprudence to neglect his health, while pursuing his professional studies. In the Autumn of 1829, however, he retired to his friends in the country, hoping that change of air and relaxation from mental exertions might relieve the miseries of a disordered stomach. In vain! for now he began to fancy a number of ailments, in addition to the list of realities. The pain which he felt in his stomach after food, was construed into inflammation of the organ, and relays of leeches to the epigastrium, with absolute starvation were employed to remedy the dreaded evil. Under this plan the mind became more disturbed—sleep fled—strength decreased—and his embonpoint vanished. A young medical friend was consulted, who saw nothing but acute gastritis that had supervened on chronic. More leeches were applied, and the nutrition still farther decreased. For a few days after this the epigastric pains were ameliorated; but the strength was almost annihilated, and the emaciation made rapid advances. With the loss of blood the irritability of the nervous system became greatly heightened—and now a feature was added—an intermitting fever, of the tertian type, accompanied by a most distressing distention of the epigastric region. These paroxysms became more and more intolerable; and the sulphate of quinine was proposed, but the patient refused, and sent for M. Laborderie. This gentleman examined the case with great attention, and although a stanch Broussaian himself, he could not but perceive that the disease of his young medical friend was rather gastralgia than gastritis. The acetate of morphine was prescribed, with gradually increasing diet, and at last some good old wine, much diluted with water. It is hardly necessary to state that, in a short time, the gastralgia, as well as the tertian symptoms became mitigated, and not long afterwards entirely disappeared.—REVUE MEDICALE.

V.

COMPLETE SUPPRESSION OF URINE FOR SEVEN WEEKS.

WE notice this case, as published in a late number of Hufeland's Journal, for reasons which will appear in the sequel.

Case. Itzig, a boy, 12 years of age, and who had always enjoyed good health, was taken, in the latter days of December,

with a kind of malaise, which lasted five or six days, and for which he took some purgative medicine, which acted also as an emetic. From this date the urinary secretion ceased entirely, not one drop of urine being passed, although the boy drank freely of liquids. Once only he passed about a pint of urine, after taking some diuretic medicines—and then the secretion stopped. Dr. Hubenthal was then consulted, and prescribed various medicines during a space of nineteen days, without any success. At the end of seven weeks, viz., on the 20th of February, Dr Ramm visited the patient, and found that no urine had passed for many weeks—that a natural motion of the bowels took place every second or third day—that there was no increase of perspiration, but the reverse—that the appetite was tolerable, and sleep sound. The boy in all other respects appeared healthy. There was no reason to suspect any deception on the part of the boy or his parents. On the 22d February, there was a consultation of several physicians. The abdomen was rather distended, as there had been no stool for some days. A catheter was introduced into the bladder, but not a drop of water flowed. Injections of castor oil with oil of turpentine, were throwu up per anum, and turpentine frictions were applied over the loins, and bals. copaibæ was ordered internally. These remedies were commenced on the evening of the 22d, and on the 24th, a few drops of urine mingled with blood were passed. In a few hours more a quart of water was discharged, and this was repeated every day afterwards.

Most people will be sceptical as to the truth of the above narrative, and we should have doubted its authenticity ourselves, had we not lately seen a case where some weeks passed without any urine being secreted, and where it was impossible that any deceit could be practised. The catheter was introduced almost every day, but nothing except a few drops of blood followed. There was no affection of the head all this time; but a tumor existed in the right side of the abdomen, very painful, and apparently of a malignant nature. We this day (6th January, 1831) examined the patient, and ascertained that not a drop of urine had passed for five weeks! Mr. Acret can attest the truth of this assertion, strange as it may appear.*

VI.

On the Employment of Atmospheric Air as a Mean of Diagnosis, Prognosis, and Treatment of Deafness occasioned by Chronic Diseases of the Eustachian Tube. By M. Deleau, Junr.

In a late number of Magendie's Journal, there is an extracted memoir on the above subject, said to be founded on much practical observation and experience.

The author observes that every time we inspire there is some introduction of air through the Eustachian tube into the cavity of the tympanum. This, he thinks, may be proved by the sensations of any individual who inspires strongly on going from a warm to a cold air. He will then feel the cold in the interior of the ear. In the act of sneezing and blowing the nose, the access of air to the cavity of the tympanum is facilitated. A person burst the membrana tympani by violent straining at stool. When a person is partially deaf from cold, the hearing is bettered by blowing the nose. These and various other considerations, M. Deleau thinks, authorise us to conclude that the delicacy of hearing depends in a great measure on the free circulation of air in the cavity of the tympanum through the Eustachian tube—and consequently that, when this passage is obstructed by any means, the want of fresh air in the said cavity, becomes a source of deafness.

M. Deleau alludes to the fact that hearing is not affected by perforation of the membrana tympani, until inflammation arises, which it always does after lesion of this

* Since the above was written, the tumor burst internally—a large quantity of fluid was discharged per anum—and the patient is recovering.—*Ed.*

auditory diaphragm. He conceives that the motions or vibrations of the membrana tympani contribute to move the air in the cavity of the ear, and thus secure its renovation. So the presence of wax in the meatus auditorius causes deafness, not only by intercepting the sound, but by depriving the membrana tympani of its elasticity and motions, and thus preventing the renovation of air in the internal ear. Polypi and chronic inflammation of the auditory passages produce the same effect. Among the causes of deafness may be remarked tumefactions of the tonsils, which obstruct the Eustachian tubes, and prevent the access of air to the internal ear. This effect is particularly observable in children, after measles, scarlatina, and inflammation of the air-passages. The same effect is also observable in people of all ages, after or during diseases about the throat which obstruct the Eustachian tubes.

The author then proceeds to remark that it is only in chronic affections of the ear, that we should think of injecting warm air into the Eustachian tubes. This operation is to the ear, he observes, what catheterism is to the urethra and bladder. Inflammation, he thinks, cannot subsist long in the Eustachian tube, without producing more or less of stricture in that canal. M. Deleau avers that he is able to recognize the physiological and pathological condition of the Eustachian tube and cavity of the tympanum, by means of air thrown in through a gum-elastic tube—and that by the nature of the sounds which are produced by this introduction—by the effects resulting in respect to audition—and the sensibility of the parts to air.

He informs us that, if air be thrown into the Eustachian tube of a person in health, the individual immediately claps his hand on the external ear, and feels as if water were injected into the meatus auditorius, with all the strange and tumultuous noises thence resulting, occasioning some alarm in his mind. M. Deleau says, that if the ear of the operator be applied to that of the person operated on, the noise appears to be reverberated on his own tympanum, and resembles the distant sound of a cascade, or a fall of rain in a wood. He goes on to describe the various sounds and phenomena resulting from this operation, and the conclusions which may be drawn from them; but we are unable to follow him. Those who practice exclusively on the ear will probably do well to consult this essay of M. Deleau, in the journal which we have indicated.

VII.

DR. HARRISON ON STERILITY.

THIS is as regular a puff as ever emanated from St. John Long or Dr. Eady. The SPINE-TINKERING trade has probably declined of late in Holles-street; and a new tub is now thrown out to the whale—in the shape of a bubble-hypothesis that sterility depends on crooked spines—and as Dr. Harrison proclaims himself the best spine-doctor in Modern Babylon, the inference is natural enough, that the impotent and barren of both sexes will fly to Holles-street, to have their backs thumbed and their families increased:—Listen to the boastings of the spine-doctor. "*My* successful exertions in removing derangements of the spinal column, and *ability* to rectify its numerous deflections, have already led to a better knowledge of the *peculiar* functions of the spinal *nerves*, both in their healthy and diseased condition." Did ever regular physician put forth such a piece of puffery in this world! Then comes a leash of *anonymous* cases, where females ceased to bear children while their health was bad—had their spines thumbed by the Doctor for real or supposed deformities—got into good health—and then became pregnant—ergo, quoth the Doctor, it was the spinal *deflection* that caused sterility for a time; and my thumbs, by putting the vertebræ into their proper places, restored the uterine system to its proper vigor.—Q. E. D.!

There is not a more crafty old fox within this wide metropolis than the spine-doctor of Holles-street!

VIII.

BETHLEM HOSPITAL—Dr. WRIGHT.

We are sorry to perceive that a few indiscretions and unguarded levites, on the part of the talented apothecary of the above institution, Dr. Wright, have been magnified by a pack of ignorant and malicious menials, and by, we cannot help fancying, a most partial tribunal of judges, into a long train of enormous charges and delinquencies, ending in the expulsion of Dr. Wright from his situation in Bethlem. The gravamen of the accusation against the unfortunate apothecary, appears to be the fact, or rather the suspicion, resting on the testimonies of some discarded and disappointed servants, that Dr. Wright had been "the worse for liquor," some eight years ago, and "once since that time," some eighteen months ago! There are some episodes indeed, to the grand drama, which swell the tide of fortune against the Doctor. Thus he is supposed to have been the principal, or a powerful auxiliary to the decapitation of Margaret Nicholson—after her death—and to have winked at the artifice of an accomplice in the crime, who made an artificial head filled with saw-dust, and afterwards turned informer against the phrenological enquirers. These deadly sins would probably have been pardoned, had not the Doctor taken some liberties with one or two of those vestals who guard the weak intellects of the Bedlamites. One of these vestals swore, or asserted, that she was not married, but, on being cross-questioned, deposed to the contrary—a trifling inconsistency, which made no impression on the impartial judges, who listened with eagerness to every thing against the accused, but passed over unnoticed all that militated in his favour. The whole investigation, indeed, is a series of "leading questions" on the part of the committee, by which every thing that they apparently wished to come forth, was put, cut and dry, into the mouths of the witnesses! They must have been stupid dolts who could not have seen that the object of their being cited before this dread tribunal, was, not to tell the truth, the whole truth, and nothing but the truth —but, on the contrary, to furnish matter of accusation against Dr. Wright, all other testimony being evidently deemed irrelevant, and unnecessary.

We have admitted, in the outset, that Dr. Wright has probably been unguarded; but the charges have been magnified and distorted in such a manner that we cannot but conclude that he has been very harshly dealt with. The mischief, however, is done, and Dr. Wright, with a family of children, is turned adrift, and will probably be ruined by this decision of the committee of investigation. We are sorry for it!

IX.

FATAL RETENTION OF URINE.

M. CAMBOURNAC relates the following case in a late Number of the Journal Hebdomadaire.

Case. F. Perrot, aged 28 years, of robust constitution, lived an irregular life, and was often subject to retentions of urine. In December 1829, the weather being very severe, he was affected with hæmaturia and retention, and our author could not introduce the catheter, in consequence of a stricture about the middle of the urethra. A conical bougie was made to bear on the obstruction, and leeches were applied to the perineum, in addition to semicupia and diluent drinks. In three days the urine flowed by the natural channel, and the patient prematurely resumed his avocations. In June 1830, M. C. was again summoned, in consequence of complete retention. By the same means, the urine was again made to flow. On the 15th of August, this man acted as one of the National Guards, and was much exposed to rain—after which he supped at a restaurateur's, but did not commit any excess. The same evening he was seized with dysuria, and violent pain in the region of the bladder. He could not pass a drop of

water. Leeches were applied, and various means were used; but with little success. On the 18th the constitutional symptoms assumed an alarming character, and the brain was evidently suffering. The abdomen was distended, and the hypogastrium tense and hard. Puncture of the bladder above the pubes was now performed, *and a a little to the left of the* median line. No water flowed on withdrawing the stillette. He died the next day.

Dissection. The peritoneum was much injected; but there was very little fluid effused into the cavity. The fundus of the bladder projected about an inch above the *right* brim of the pubis. The urethra presented an impenetrable stricture. The bladder was very little distended, and the trocar had only grazed the fundus, without penetrating into its cavity. Each ureter was the size of the intestine of a fowl, distended by urine, and the coats almost transparent. The left kidney was much enlarged, and its pelvis distended by urine. The pelvis of the right kidney was also enormously distended with urine. No obstruction appears to have been found to the course of the urine from the kidneys to the bladder—and the trifling distention of the bladder itself is, to us, an inexplicable phenomenon. We cannot conceive the reason why the author deviated from the middle space in making his puncture above the pubes; and altogether we look upon the operation as a very left-handed kind of business, and the dissection as any thing but satisfactory.

X.

CASE OF RAPIDLY FATAL FEVER. By M. GUALTIER DE CLANBRY.

G——, a young gentleman, a native of the Isle of Bourbon, aged 18 years, and residing in one of the public academies of Paris, who was supposed to have given way to some venereal excesses, and who was most ardent in his studies, came under the care of the narrator on the 24th of May, 1829. He had passed several nights entirely without sleep, and on the morning of the above date was seized with lypothymia, and fell down insensible. On partial recovery, a rigor succeeded, and then a cold perspiration. The heart beat feebly and irregularly. In two hours after this attack, Mr. G. was seized with another and more violent rigor, followed by febrile re-action, in which the pulse got up to 130 in the minute, and the heat of the skin was intense, with great headach and morbid sensibility of all the organs of sense. *Lavements, pediluvia, twenty leeches to the neck.* There was a slight amelioration of the symptoms from these means, which did not long continue. *25th May.* Same state—thirst urgent—heat intense—great anxiety—pains in the limbs—inflammation of the throat, with tumefaction of the uvula, tonsils, and palate. Twenty more leeches to the throat. 26th. No sleep last night—some delirium—fever violent—pulse 130—great and tumultuous action of the heart—respiration precipitous—sensibility of the skin extremely exalted—tongue red at the end and sides—white in the middle—symptoms of cerebral excitement. Venesection to ℥xviij.—twenty leeches to the back of the head—stimulant pediluvia—lavements. The blood shewed no marks of inflammation, and was not at all firm in its coagulum. The excitement diminished after the bleedings, and there was some tendency to diaphoresis; but in the evening there was an exacerbation of all the symptoms, more intense than ever, accompanied by distressing restlessness, and considerable delirium. 27th. In the morning there was a notable remission of the fever and all the symptoms, which promised a favourable crisis; but there were some appearances of an unfavourable nature, in the physiognomy, the state of the circulation, and the restlessness of the mind. Towards midday, symptoms of debility had acquired an alarming degree of intensity—delirium—jactitation—high state of morbid sensibility—constant discourse, in the third person, respecting his own decease, as having occurred, with lamentations on

that event. He died at eleven o'clock in the evening.

Dissection, 16 hours after death. The venous system was gorged with black blood not at all coagulated, but even more fluid than during life. The vessels of the brain and its membranes were much injected; and the cerebral substance was peculiarly soft—almost creamy. The heart was flaccid and pale, containing clots of black blood. Its muscular substance was very soft and lacerable. The lungs were gorged with blood. The liver was enormously gorged with fluid and black blood. The spleen was enlarged, as were the kidneys. The mucous membrane of the bronchia and intestinal tube was highly injected, of a violet color, pulpy, and soft. No ulceration or peculiar appearance in the mucous membrane of the small intestines. The muscular system generally presented a peculiarly pale and flabby appearance; and there were some sanguineous infiltrations between the muscular fibres in various places.

Into the various reflections of the narrator of this interesting case, we have not time to enter. He queries whether the series of morbid phenomena is to be ascribed to a primary affection of the blood itself, or of the nervous system—inclining to the latter hypothesis. We are disposed to agree with the author in his conjectures—and we seriously doubt the propriety of the depleting system in a young Indian, of exquisite sensibility, who had put his whole nervous fabric into a state of extreme exhaustion as well as excitability, by inordinate study, and by a still worse course, inordinate venereal excesses! We recommend the case to the attention of our readers.

XI.

ON WOUNDS OF THE THROAT. By BARON LARREY.

[CLINIQUE CHIRURGICALE.]

Case 1. M. Arrighi (now Duke of Padua, and then aid-de-camp to General Berthier) received a musket-ball in his neck, at the siege of Acre, by which the external carotid artery was cut across, near to the place where it is given off from the internal, and as it enters the parotid gland. The gush of blood from both apertures of the wound attracted the attention of the artillery men, and one of them instantly pushed a finger into each opening, and thus arrested the flow of blood. Baron Larrey was immediately called amidst a shower of shot and shells. He applied pressure and maintained it carefully for some days, by which means, and without any ligature, life was preserved, and all hæmorrhage prevented.

Case 2. After the battle of Waterloo, the Baron had an opportunity of seeing a young English soldier who had had the left external carotid artery *partially* opened. The hæmorrhage was alarming; but the English surgeon cut down on the aperture, and tied the artery both below and above the wound. The patient entirely recovered.

Case 3. Henry Gabon, of the Swiss Guard, was brought into the Hôpital de la Garde, on the 21st November, 1828, immediately after receiving a sabre-wound, while fighting a duel, in the upper part and right side of the neck. When the Baron arrived the man was nearly dead from hæmorrhage and suffocation. The wound was laid bare, while an assistant made pressure on the line of the artery, and then the Baron enlarged the orifice, and discovered that the superior thyroid artery was wounded as well as the external carotid itself. A cellular pouch had formed behind the thyroid gland (which was goitrous), filled with clotted blood, and which was pressing on the trachea. The removal of these clots was followed by a jet of arterial blood. The Baron was unable to seize the vessels from which the blood issued, and therefore laid bare the trunk of the common carotid, and passed a ligature round it. He was not a little surprised to find this artery no larger than the radial artery at the wrist. This was attributed to the great loss of blood. The great source of hæmorrhage

was thus cut off; but some vessel still continued to supply blood at the upper part of the wound. This vessel was fortunately seized by the forceps and secured. The wound was then cleaned and dressed. The breathing continued difficult, and the lips deadly pale. For two or three days it was doubtful whether this man would rally; but eventually he recovered.

Case 4. A grenadier of the army of Egypt was wounded by a bayonet, the broken point of which remained, for six weeks, deep in the left side of the pharynx, behind the arch of the palate. The man had entirely lost his voice. The Baron, with great difficulty, seized the foreign body and extracted it. The voice was instantly restored. The iron had pressed on the laryngeal branch of the par vagum.

Case 5. A subaltern officer of the Guards was brought into the hospital on the 7th of June, 1824, presenting a wound in the neck, on the right of the larynx, so small as to be scarcely perceptible. There was great ecchymosis and tumefaction of the whole anterior region of the neck, with deep-seated pain in the chest. Voice and speech were gone—the respiration exceedingly difficult, as well as deglutition. He informed Baron Larrey, by writing, that this wound was made by a small sword. Venesection was repeatedly employed, together with cupping and leechings, which gave some relief. On the 6th day, however, he was menaced with suffocation, and his face was blue and bloated. The Baron found him apparently in the agonies of death. In this crisis he determined on tracheotomy. He made an incision through the integuments of some length, and then perforated the space between the thyroid and cricoid cartilages. An immense explosion of air was the immediate consequence, together with the expulsion of several clots of blood. Respiration succeeded, and considerable relief was the result. A paroxysm of suffocation, however, soon after occurred, owing to the obstruction of the orifice in the air-passage, and a tube was quickly inserted. Relief was again obtained; but thirst was intolerable, and the unhappy patient was unable to swallow. In this dilemma, a tube was, with great difficulty, passed into the stomach, and fluids introduced into that organ. The thirst was moderated; but he could not bear the presence of the hollow bougie, and tore it out himself. He lingered in dreadful agony, till four o'clock the next morning, when he expired.

On dissection an abscess was found in front of the three superior cervical vertebræ, (which were denuded,) the size of a hen's egg, and which had pressed so much the parietes of the pharynx against the cricoid cartilage and upper part of the trachea, that respiration could not be carried on through the aperture that was made by the knife. A purulent infiltration had also penetrated down into the chest, through the cellular membrane.

The Baron, in his remarks on this case, does not allude to the possibility of life being saved, if the opening had been made lower down in the trachea, instead of the place which he pitched on for the operation. In all cases where tracheotomy is deemed necessary, the lower down the operation is performed, the more difficult it is—but the greater is the chance of success, for the obvious reason that we are thus the more likely to get below the obstruction.

Case 6. General Murat (afterwards King of Naples) received, at the battle of Aboukir, a musket-shot, which traversed the neck, from side to side, wounded the root of the tongue, and carried away a portion of the epiglottis. The Baron was on the spot, and rendered immediate assistance. The first phenomenon which he observed, was the discharge of the dismembered portion of the epiglottis, followed by a considerable expectoration of frothy blood. The General was harassed for some days with painful cough, loss of voice, &c. The Baron cleared the orifices of the wound both at its entrance and exit, and then introduced an elastic tube into the œsophagus, for the purpose of introducing liquid nourishment

and drink into the stomach. This was necessary, as there was no proper valve to prevent the ingress of substances into the trachea. In the course of 18 days, however, the parts had so accommodated themselves to the loss of a portion of the epiglottis, that this officer was able to swallow with little or no inconvenience.

Case 7. In this case, which was that of a soldier in Egypt, who was wounded by a musket-ball on the 21st of March, 1801, the whole of the epiglottis was carried away. The poor fellow was devoured by thirst, but could not drink, and harassed with incessant cough. In this dreadful state he continued four days, without any relief. When Baron Larrey saw him he was in the most piteous and dangerous condition. The Baron was enabled to pass a gum-elastic tube down the œsophagus, and through this to introduce liquids into the stomach. By a long and assiduous perseverance in this measure, the life of the soldier was saved, and Nature supplied the place of the epiglottis by a contrivance of her own.

Two other cases, nearly similar, are related by the Baron, but the foregoing are, we think, sufficient for the elucidation of the present subject. In another short article, we shall give some cases of wounds of the œsophagus, from the same ample source of information.

XII.

CASE OF CANCER OF THE UTERUS. By JOHN BEATTY, M. D. &c.*

Rachael Collins, ætatis 54, a domestic, complained in May, 1828, that for some years past she had suffered from profuse uterine discharges of blood at irregular periods, attended with some pain round her loins and down her thighs, with loss of appetite and debility. When the flow of blood was absent, a most offensive and scalding discharge of greenish yellow matter took place, excoriating the labia and adjoining parts. On examination the os uteri was found low in the vagina in a perfectly carcinomatous state, with a very large cauliflower-like surface, painful to the touch. She had borne two children when young, but for several years past had not cohabited with her husband. Dr. Beatty prescribed for the patient, and saw nothing more of her till July, 1829. All the symptoms were now very much increased, but the chief suffering, was from inability to pass her stools from what she termed a lump in her passage, and almost incessant vomiting. Mild injections relieved her for a time, but soon the increase of the tumour rendered it impossible to throw up any fluid. The next distressing symptom that presented itself was the passage of the stools from the vagina, and the patient lived in a miserable state till the 18th of September, 1829.

Sectio Cadaveris. Body much emaciated. On opening the abdomen the large intestine was found contracted, and nearly empty. A convolution of the ileum, near its termination, dipped down into the pelvis, and passed in a curved line from left to right, between the upper and back part of the vagina and the rectum, to both of which it adhered. The urinary bladder was dilated, but empty, and the peritoneum covering its upper and back part was very thick and strong. The contents of the pelvis were detached from its walls, but much difficulty was experienced on the left side, in consequence of the rectum and vagina being connected to it by a firm mass which it was necessary to cut through. The uterus appeared very little enlarged, but felt firm, and a number of minute blood-vessels were seen ramifying on its surface. The vulva was dilated, and the mucous membrane lining the vagina and labia was of a dark chocolate colour, and thickened. A fetid purulent discharge oozed from the vagina. On slitting up the back of the rectum, the lining membrane presented the same dark appearance as the interior of the vagina. The anterior surface was perforated by an irregular

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* Dublin Medical Transactions, Vol. I, Part I.

ulcerated opening, about an inch in diameter the edges of which were thick and hard, and the adjoining part of the bowel partook of the same carcinomatous character. This opening communicated directly with the vagina, to which the rectum was here firmly attached; in fact these two, with the portion of the ileum described, were all blended into one mass of cancerous tumour, which, on opening the vagina, was found to proceed from the os uteri. The ileum, like the rectum, had a free communication with the vagina at the point of adhesion. The back of the bladder had also been implicated, and a large opening between it and the anterior part of the vagina was discovered, the edges of which were thickened and irregular. The mucous membrane of the bladder was thickened, and that of the urethra had the dark appearance that was found in the rectum and vagina. The body of the uterus when cut into presented a dense white cartilaginous surface; its cavity was filled with pus, and the lining membrane very vascular. From the os uteri a large cancerous mass projected, which adhered to all the parts in its vicinity, and had produced the ulcerated communications described.

After the paper on cancer uteri by Dr. Montgomery, an analysis of which we have given in our last Number, we need say little on the present case. But Dr. Beatty makes one remark which we cannot pass in silence.

"This case is in perfect accordance with an observation I have made for a great number of years, that in almost every instance where I have been consulted for cancer of the uterus, the disease has arisen in persons who, while young, had either lost their husbands, or separated from them. I do not remember to have met with an instance of the disease, in which an early interruption of connubial intercourse had not taken place. A remarkable case occurred to me in 1814, in which I acted upon this principle, and by recommending a restoration of conjugal rights, succeeded in checking the disease.

A lady and her husband, after having had children, had lived very much asunder for some years, and at the time I have mentioned, I was consulted by the lady, in whom incipient cancer was now evident. She complained of pain and weakness in the loins, so great as almost to incapacitate her from walking; this was accompanied with a sense of bearing down, and a leucorrhœal discharge.—Acute pain shot from time to time across the pelvis, and the digestive organs were very much deranged. The os uteri was found lower in the vagina than is natural, and presented a thickened, irregular, and indurated surface, painful to the touch. The upper part of the vagina was also hard to the feel, and the rugæ were considerably obliterated. A consultation was held with two physicians of the most extensive experience in this kingdom, to whom I reported the result of my examination. One of the gentlemen having made a similar examination, confirmed my report and opinion, and they both agreed in recommending a total separation of beds, as the plan most likely to prolong a life which must become a sacrifice.

I mentioned the observations I had made on patients labouring under cancer of the uterus, and expressed a hope that if connubial intercourse were restored, the progress of the disorder might be arrested. The idea was new to them, but they readily acceded to my proposal. The husband returned to his wife's bed, and the result was, the birth of a healthy child in less than a year.

A perfect restoration of health followed, which has continued without interruption, though fourteen years have elapsed since the child was born. The lady, from having been emaciated and worn down, recovered her flesh and good looks, and has mixed freely in the upper class of society ever since."

PORTFOLIO, OR, ANALECTA MINORA.

I. Cutaneous Diseases.

In a clinical lecture, Dr. Elliotson threw out some important observations on the antiphlogistic treatment of diseases of the skin. A girl was admitted with impetigo of her arms and various parts of the body. She had head-ach, drowsiness, giddiness, and full pulse. She was put on very low diet and bled from time to time (the blood being generally inflamed)—while mercury was moderately exhibited. By this treatment, and this alone, the patient was soon cured of her impetigo, without any of the quackeries of local application. In another case, where the eruption might be termed eczema, the same treatment was adopted, and the same results ensued. There is no doubt that the majority of cutaneous diseases are more than skin-deep, and would oftener give way to proper medicines internally exhibited, more especially with low diet, than to the farrago of external remedies.

II. Treatment of Hemiplegia.

Dr. Prichard, of Bristol, has drawn the attention of the profession to a mode of treating old and obstinate hemiplegia, and other diseases of the head, which he has found more successful than any other. He properly observes that recent cases are to be treated by antiphlogistics and local depletion, together with a cautious use of mercury; but, after these measures have been pursued for a certain time, depletory remedies can no longer be pursued—and counter irritation, with a drain from the vicinity of the disease, is most likely to be beneficial. For this purpose, Dr. P. makes an incision in the line of the sagittal suture, or posterior to that, and fills the incision with peas, which are to be renewed and kept discharging for a considerable time. He has employed this process with much advantage in many other affections of the head besides hemiplegia—more especially in cases of stupor, or coma occurring in the course of severe typhoid fevers. Many years ago, we were in the habit of using a somewhat similar remedy in cases of epilepsy. The head being well shaved, a narrow strip of lytta plaster was applied in the line of the sagittal suture, and when the skin was removed, a cord of silk or cotton thread, imbued with blistering ointment, was laid along the above line and daily renewed. This kept up a constant purulent discharge from the part, and is of extremely easy application.—*Med. Gaz.*

III. Tetanus Traumaticus cured by Oil of Turpentine.

Dr. Gibbon (of Swansea) has reported a case of this kind in our cotemporary, the Gazette. The patient was a female who received a wound in her hand, and in ten or twelve days afterwards shewed symptoms of tetanus, and this disease soon became established. Dr. G. ordered a liniment of oil of turpentine and laudanum to be rubbed over the greater part of the body. An injection, composed of two ounces of oil of turpentine, one ounce of olive oil, with gruel, was administered, and six grains of calomel were ordered every six hours. These medicines were continued for several days, with some modifications, and in eight or nine days the disease might be said to be subdued. There was then slight ptyalism established.

IV. Sciatica of Twelve Years' Standing cured by Acupuncture.

A case of this kind is reported from the Western Dispensary: The patient was an aged female, and the pain was almost intolerable. Colchicum, Dover's powder, and

various other means having proved unprofitable, acupuncture was employed, and the pain instantly ceased. There was no return of the sciatica!

V. The late Mr. James Lambert.

This gentleman, who, unfortunately, for his own peace of mind, as well as that of many others, became involved in the disagreeable consequences of public criticism, paid the debt of nature at a very early period of life, and the disease under which he fell is remarkable in itself, and extremely unusual at his years. Mr. Lambert had always (at least for some years before his death) a very sickly appearance, which indicated some latent visceral affection. We have often met in the medical societies, and our impression always was, that he would die of phthisis. This, however, did not happen. It appears, from an unfinished memorandum in his own hand-writing, that in the month of May, 1830, he was affected with what he considered meningitis, which gave way to depletion, but left much debility. He tried change of air, and benefitted from time to time; but still a pretty constant symptom was palpitation of the heart, on using any strong exercise. The loss of his father made a strong moral impression on his mind, and to palpitation was added dyspnœa, both which symptoms progressively increased till the day of his death.

On dissection, the right lung was found universally adherent to the costal pleura, and the greater portion of this lung was in a state of hepatization, in which were imbedded many depositions of a calcareous nature, some of them as large as a horse-bean. The heart was considerably enlarged. "Close to the heart, on slitting up the aorta, its internal surface was of a bright scarlet hue, as was the internal surface of the cardiac cavities, which were severally laid open, and, in doing so, a tumor became apparent, about the size of a large lime, occupying the septum between the two auricles, and, consequently, protruding into their cavities. It was soft, inelastic, and its outer surface covered by the lining membrane of the auricles, of a still deeper crimson color than the rest of the cavity. On laying it open from the right auricle, it proved to be an aneurismal sac, communicating with the aorta by an opening large enough to admit the tip of the little finger, immediately behind the semilunar valves nearest to the right auricula propria, the two coronary arteries being apparently sound and opening into the aorta behind the two other semilunar valves. The mouth of the sac was of such a size, and in such a situation, as to be completely covered by the valve when in its perfect state of collapse, as during the contraction of the ventricle. The contents of the sac were about five drachms of coagulum, grumous in its centre, but becoming more dense as it approached the surface of the sac." The abdominal viscera, except the spleen, which was enlarged, appeared sound.—*Lancet, January* 29.

Although we cannot quite coincide with our contemporary that Mr. Lambert died of a broken heart, yet we can well believe that anguish and perturbation of mind might have exasperated and accelerated a disease, the seeds of which must have been sown long before the unfortunate transaction took place which embittered this young gentleman's happiness. The calcareous depositions in the lungs—nay, the aneurism itself, were of considerable duration. Perturbation of mind is not a likely cause of such a very peculiar disease, though doubtless it would tend to aggravate any disease in existence at the time or previously. Often as we were opposed to Mr. Lambert in medical politics, we always considered him as a young man of superior talent; and had he lived, we have no doubt that he would have acquired reputation in his profession. His fate may teach us to avoid, as much as possible, those moral causes which agitate and embitter the little span of existence which is allotted to us on this transient scene of vanity and vexation of spirit!

VI. Ergot of Rye.

Drs. Spairani and Pignacea, of Milan, have recently made some observations on the use of the above article, not only in uterine but in other hæmorrhages. Led by analogy, the former of these gentlemen was induced to exhibit the ergot in uterine congestion and hæmorrhage, unconnected with pregnancy or parturition; and as useful in these cases, he determined to extend its exhibition to hæmorrhage in other organs than the uterus—as, for example, in hæmoptysis, epistaxis, and hæmaturia. Having reason to know that the ergot is of immense utility in uterine hæmorrhage, and that it is not so generally administered as it ought to be upon such occasions, we shall devote a page or two to the paper now under view.

Case 1. Metrorrhagia. This was a young lady who had been very irregular for some time, and occasionally went two or three months without menstruating, when a profuse discharge would come on. In the present instance it amounted to menorrhagia, and resisted all the usual means. The narrator, Spairani, administered three drachms of the ergot in two days, the dose being about seven or eight grains at a time. The hæmorrhage soon ceased.

Case 2. This was a female, who was safely delivered of her fourth child, and the lochia ceased at the expiration of eight days. Soon afterwards the discharge re-appeared, and increased gradually till large clots of blood were daily evacuated. The patient became sleepless, debilitated, and affected with violent pains in her limbs, loins, and hypogastric region. A drachm of the ergot was divided into eight doses, and administered in the twenty-four hours. The discharge ceased at the end of the first day, and did not re-appear.

Case 3. Madam N. was affected with profuse menorrhagia, attended with pains in the loins and hypogastrium. The discharge was pure blood, and had continued for 15 days. The ergot was administered in the manner above-mentioned, and by the end of the second day she was quite well.

Case 4. Madame T. had been confined of a child two months, when, without any evident cause, a profuse menorrhagia came on, and continued for six days, rather augmenting than diminishing. Nevertheless the health was excellent, and no pains accompanied the discharge. Eight grains of the ergot were ordered every two hours. On the next day, the discharge was considerably diminished, and on the third day it entirely disappeared.

Case 5. Judith Massana, aged 36 years, had borne five children safely, and one laboriously. It was a few months after this last accouchement, that the patient was seized with menorrhagia, which augmented in quantity, and was mingled with large clots of blood. Fifteen grains of the ergot were administered twice a day for two days, when the discharge entirely ceased. The remedy, however, was continued a few days longer.

Case 6. N. N. aged 27 years, aborted frequently, and had had frequent attacks of menorrhagia. The uterus was enlarged, and there was a suspicious excrescence on the left side of the cervix uteri. Our author was called to her on the twentieth day of a profuse uterine discharge, and by which she was reduced to a deplorable state of pallor and debility; she was also suffering greatly from pains in the loins and neighboring parts. The ergot was administered in infusion, and the discharge was checked within twenty-four hours. On the third day it ceased altogether.

Case 7. N. Ferrario presented symptoms quite similar to those of Case 5. The ergot was administered for two days without any effect. Another shop was resorted to, and the ergot now produced the desired operation in 24 hours. It was evident that the medicine was bad in the first instance.

Case 8. A female experienced a fall in the sixth month of pregnancy, and aborted.

In a month after this a profuse menorrhagia occurred, with the usual pains, &c. The ergot was prescribed, and in four days there was an end of the complaint.

In another short article we shall present to our readers the efficacy of the ergot in hæmorrhages from various parts of the body, as promised in a subsequent communication from the same authors.

VII. NEW MODE OF OPERATING FOR NÆVUS. By Dr. M. HALL.

THIS operation consists in the introduction of a couching-needle with cutting edges, at one point of the circumference of the nævus, close by the adjoining healthy skin. From this point the instrument is made to pass through the tumor in eight or ten different directions, so as to produce slight incisions through its textures, parallel with the skin, but not so as to pierce the tumor in any other part. The first point of puncture is to be made the *centre* of several rays of slight incisions effected by merely withdrawing, and again pushing forward the instrument, in the manner and in the various directions already mentioned. This plan was practised, under Dr. Hall's observation, by Mr. Heming, of Kentish-town, on a nævus somewhat larger than a shilling. A little pressure was applied over the tumor—there was no pain—no hæmorrhage. For several weeks nothing appeared to have been effected by the operation, and it was concluded that the operation had failed. "What a short time did not effect, however, a longer period accomplished completely. Half a year after the operation, the tumor was found to have disappeared, and the color of the skin to be nearly natural."

As the operation was performed in only one instance, and, as a long time intervened between it and any sensible effect, we have some misgivings as to the "*post hoc, ergo propter hoc*," on this occasion. We once got into some discredit by strenuously recommending an operation for a nævus situated on the head of a child; but which operation was resisted by the tender-hearted mother. About a year afterwards the mother brought the child to us, when, to our surprize, the nævus had entirely disappeared, *without any operation*. We do not mention this fact to throw any discredit on Dr. Hall's proposal; but only to shew that *one instance* is but slender ground for drawing a conclusion, either in medicine or surgery.

VIII. RUSPINI'S STYPTIC.

DR. A. T. THOMSON has announced the discovery of the composition of this nostrum, and we hope he may be found correct, for, unquestionably the medicine is one of the most powerful restrainers of hæmorrhage which we possess. Its price is enormous, and therefore its utility—indeed its use, is greatly curtailed. Without going into the process by which Dr. T. arrived at his conclusions, we may observe that he considers *Gallic Acid* as the active principle of this styptic. There are in it, he remarks, minute quantities of opium and sulphate of zinc, but they can have no operative effect. Dr. T. avers that the vehicle is alcohol, with a small quantity of rose-water to give it odour. This observation induces us to fear that there is some mistake, or that more than one kind of Ruspini's styptic is in the market. That which we examined a few months ago, while exhibiting it in a case of internal hæmorrhage, was insipid and tasteless as spring water. It had no appearance of alcohol. Dr. T. informs us that alcohol dissolves one-fourth of its weight of gallic acid—and consequently that, "an excellent styptic may be, at any time, extemporaneously prescribed." "In cases of hæmaturia the addition of some gallic acid to a tincture of uva ursi, will be found to answer every indication which can be expected from the employment of astringents in this disease." Dr. T. thinks the gallic acid is taken into the circulation, and passes undecomposed through the kidneys, so as to reach the bleeding vessels wherever situated.—*Med. and Phys. Journ.*

CLINICAL REVIEW,

OR

HOSPITAL REPORTER;

WITH

CRITICAL COMMENTARIES.

I.

GLASGOW ROYAL INFIRMARY.

INFLAMMATION OF THE PERIOSTEUM AND DEEP-SEATED CELLULAR MEMBRANE, ENDING IN DEATH OF THE BONE OR DESTRUCTION OF JOINTS.

We have always characterised the surgical reports from the Glasgow Royal Infirmary as very useful and practical papers. Dr. Weir has followed the example of his predecessors and contemporaries, and published some valuable facts and instructive cases, in the number of our Glasgow contemporary for November of the present year. We select, on this occasion, the subject of periostitis, as Dr. Weir denominates it. We know that the affection of which we are about to detail instances, is not uncommon, we have seen several such ourselves, and we know those who have seen others. Yet it is not an affection of which we have a good description in any surgical works which we have seen.

Case 1. John Henderson, æt. 10, admitted Dec. 4th, 1829.

Left knee much swollen, measuring four inches more than the opposite—swelling soft and puffy—joint exceedingly painful on motion or when touched. Immediately over the external condyle, an ulcerated opening, discharging much purulent matter not communicating with the joint, but allowing a probe to be passed for several inches upwards along the femur, which is felt bare. Whole thigh much swollen to the groin—most severe pain in the knee-joint, and lower half of the thigh on the slightest motion of the limb, but little pain when at rest. Acute pain along the front of the tibia, with œdema of leg and foot—on the dorsum of the foot a slough, which is extending. General health much impaired—pulse 120, feeble—great emaciation. Six weeks ago he received a blow upon the knee, immediately followed by pain and swelling of the joint and lower part of the thigh. Two weeks ago, an abscess formed over the external condyle, which was punctured, and eight ounces of bloody matter were discharged. Wine, tonics, roller and compresses were employed, an incission was made on the front of the tibia and dorsum of the foot. The discharge increased greatly, and was very fetid, the slough separated from the foot, the debility became extreme, and three weeks after admission he died. Several incisions about the knee-joint were required; the discharge throughout was thin, dark, offensive; and before death the whole cellular membrane of the leg was in a state of slough.

Dissection. Much sero-purulent fluid in the cavity of the pleura, with slight traces of inflammation of that membrane, and apparently recent adhesions. Substance of the lungs healthy, excepting an abscess containing sero-purulent matter, in a small portion of the left lung. Much serious fluid in the abdomen, and mesenteric glands enlarged. Left femur diseased throughout; the lower half in a state of necrosis, with a scale of bone of some thickness beginning to separate—the disease extending for some way into the medulla, and in several places near the condyles. New osseous particles deposited in irregular patches on its surface; on the upper half of the femur many pieces of new bone deposited, forming irregular prominences in some parts, but chiefly

smooth and uniform, looking like a layer of new bone, and augmenting the circumference of the femur. Cartilages of the knee-joint completely destroyed, and the ends of the tibia and fibula softened. Shaft of the tibia nearly healthy.

"I believe this case to have been originally one of accute inflammation of the periosteum of the femur, followed by the formation of matter, both above and below that membrane, and attended by a very different affection, viz. ulceration of the cartilages of the knee-joint. It is likely that the blow upon the knee, besides injuring the shaft of the femur, had immediately induced inflammation of the joint, followed by ulceration and destruction of the cartilages of the tibia and fibula, with caries of the heads of these bones. It will be remarked that the disease of the femur was strictly confined to the shaft, the spongy heads of the bone remaining healthy; and it had gone so far that a commencing separation, between the cylinder and the epiphysis of the bone, at the knee-joint, was visible. With respect to the upper part of the femur, it does not appear to me that this portion was wholly necrosed and a new bone formed, completely surrounding and incasing the old, but that merely a thickening or enlargement of the old took place; a hyperostosis, as it has been called."

Case 2. George Stirling, æt. 8, admitted Jan. 2, 1830.

Eleven days previously, after the general symptoms of inflammatory fever, he was seized with severe pain and slight swelling of the left leg, immediately over the front of the tibia, in fact, with well marked symptoms of inflammation of the periosteum. There was no discoloration of the integuments, no tension, little swelling, but deep-seated, excrutiating pain, aggravated on the slightest motion or pressure, and high fever.

"An incision was made on front of tibia, three inches in length, down to the bone, which gave exit to a considerable quantity of blood, but no matter. The limb was ordered to be kept constantly cool with evaporating lotion. Next day there was redness of the leg, but the pain was not so severe. An abscess had formed above the knee, which was opened, and several ounces of pus let out. There was now some pain of opposite leg and knee-joint, to which leeches were applied. The fever was less, his bowels had been opened, and he had got some sleep. On the 4th Jan. the third day after admission, it was evident that suppuration had taken place in both legs; the former incision on the left was therefore enlarged, and a small incision made on the right, near the head of the tibia, and healthy matter discharged from both. The discharge from the thigh was profuse, thin and unhealthy; the suppuration involved its lower half, the probe passing for several inches upwards, close to the femur, which was felt rough. Both tibiæ, at the places incised, were also exposed, denuded of periosteum. Wine, quinia, and nourishing food, were now liberally given. The left leg, where the disease was most extensive, presented the appearance of an œdematous limb, studded over here and there with red patches. Several incisions were made for the discharge of matter, and an opening was also made on the dorsum of foot, where sloughing soon took place, exactly as occurred in the boy Henderson. In the right leg the inflammation was completely arrested by the first incision; the tibia was bare for about an inch and a half only, and to this portion the disease seemed to be confined. The general health soon gave way under so much local irritation and discharge; the disease extended, and, before he died, it showed itself at the very top of the left femur, where an opening required to be made over great trochanter, which discharged a large quantity of highly fetid pus. After this he sunk rapidly, and died on 25th January, twenty-four days from the appearance of periostitis."

Dissection. Necrosis of inferior third of left femur, and upper third of left tibia; affection distinctly confined to the shaft, the spongy heads of the bones, and the joints remaining healthy. The disease seemed to involve the whole cylinder of the bones, and

there was an evident commencing separation of the shaft from the extremities. At the the upper part, where the abscess had been opened, the bone was deprived of periosteum and a small portion of it dead. Upper third of right tibia in a state of necrosis, the head remaining healthy. No attempt any where to form new bone. Abdominal and thoracic viscera sound.

"This case was also a very well-marked instance of acute inflammation of the periosteum, proceedingly rapidly, and terminating in the death of the bone. It was unusual, from the circumstance of the disease affecting the tibia and femur of the one leg, and the tibia of the other, all at the same time; thus indicating some affection of the system, sufficient to entitle us to say that it was a constitutional disease. Although the tibia was the part first compiained of, it will be remarked that suppuration took place first in the thigh. It is probable that the disease commenced in both situations simultaneously. Early incision was here evidently of great advantage in arresting the disease in the right leg, in which its progress was so different from that of the left. The appearance of the latter was very similar to that of Henderson, but the case differed from his in there being no affection of the joint, no caries of the spongy extremities of the bones, and no thoracic or abdominal disease. It was different also in there being no attempt to form new bone. It would appear that there was not sufficient time for this effect to be produced, the disease having continued only for three weeks. In Henderson it existed for nine weeks.

Case 3. Philip Kelly, æt. 12, admitted November 19, 1829.

Left thigh measuring four inches in circumference more than right—inferior half of swelling hard, irregular, acutely painful on pressure, and appearing to arise chiefly from bone. On inner side of the thigh, about two inches above knee-joint, an opening through which the probe can be passed for nine inches upwards, and the femur distinctly felt bare to some extent; this opening, with another lower down, discharging fetid purulent matter in abundance. Thigh not painful on rest, very much so on motion. No affection of knee-joint. Has had disease about the femur attended with slight discharge of matter for six years, but it gave him very little uneasiness till three weeks ago; the discharge then stopped; he was immediately seized with rigors followed by fever, and an acute abscess formed on the thigh, which was opened the day before his admission and a pint of healthy pus discharged. The opening was now enlarged, the limb bandaged from above downwards, the matter carefully pressed out daily, compresses applied, and wine and nourishing diet allowed. Under this treatment matters went on well till the 29th, ten days after admission, when he was seized with severe pain on the front of the tibia a few inches below the knee. The fever grew higher, but repeated bathing, with cold applications, removed the affection in a few days. The disease in the thigh improved, and at the end of five weeks, the boy was discharged with the discharge very trifling, the opening nearly closed, and the bone not felt by the probe. The bony enlargement continued, but the lad could walk. On the 27th January, four weeks after his dismissal, he returned with the limb very nearly in the same state as on his former admission. The opening had closed up, the matter accumulated, acute inflammation supervened, and a new incision was required. The discharge was copious and healthy, the probe could be passed upwards for four inches and a half, and the bone was felt bare. There was some redness and swelling of the integuments around the opening, the pain on pressure was severe, the pulse 120, and the skin hot. The same treatment was adopted, the swelling and pain gradually abated, and the discharge became less. Several small scales of bone were thrown off, and another opening took place on the opposite side of the thigh. On the 15th February he was again dismissed, relieved, the discharge being very scanty, and the general health good. We think that the

following remarks by Dr. Weir will not be unacceptable to our readers. They appear to us to be, generally, very correct.

"At the time this case was under treatment, I had an opportunity of seeing another in private, in which the disease proceeded almost exactly in the same manner; and a few weeks ago, I had under my care, for some time, a boy also with the same symptoms. The history and progress of these three cases were very nearly the same, in regard to the age and constitution of the patients, and the seat and termination of the disease. Two of them were similar to each other, also, in the fact that there appeared a disposition to the disease, in more than one bone at the same time.

It is unnecessary to detail the other two cases which occurred during the winter. They were instances of the disease affecting the leg, in the one the tibia, in the other the fibula, and proceeding in the way it most generally does, viz. to superficial necrosis and exfoliation of the bone. The first presented the general appearance of what is often called erysipelas, but the symptoms which are characteristic of that disease, and which were present in that case on admission, viz. swelling, redness, tension and pain of the part, I am satisfied are not present in periostitis, until the disease has reached the stage of suppuration; whereas, in the true erysipelas, such are the most prominent symptoms, not only before any matter has formed, but also in many cases where suppuration does not take place at all. The one was a girl aged fourteen, the other a lad aged seventeen. The disease in both went on rapidly to the formation of matter. It was, however, kept within moderate bounds, by early and free incisions, without which there is no doubt the inflammation and suppuration, at least of the soft parts, would have extended greatly. In both, several scales of bone were thrown off before they left the hospital, and when dismissed there remained a considerable enlargement of the bone, and a small sinous ulcer of the integuments, but the disease gave little or no trouble.

It may be remarked, that in all these cases the patients were young, four of them being between eight and fourteen years of age, and one seventeen. The whole were scrofulous subjects, the first two very much so; and in several of them, the disease assumed so much of a constitutional tendency, that more bones than one were affected almost at the same time. This was the case with Stirling, in whom one femur and both tibiæ were affected; in Kelly and Henderson, in whom the femur and one tibia were affected; and in the girl, there was a tendency to suppuration in more than one place, she having an abscess on the chest, and another on the arm, besides the affection of the leg. I may likewise mention that in one of the cases alluded to, but not detailed, there was an abscess formed at the lower end of the tibia, while periostitis existed in the femur. It may also be remarked, that in several of these cases the disease was the result of external injury—that when the femur was the part affected, it uniformly commenced at its lower part, and spread upwards, and that it was very generally confined to the shaft of the bone, the head remaining healthy. In the two cases which proved fatal, but more particularly in case 2d, there appeared a distinct attempt by nature to separate the shaft from the epiphysis of the bone, thus most effectually limiting the disease.

I have named the disease in these cases Periostitis, because I consider that in all of them the affection commenced in the periosteum, although it is probable that the disease was not altogether confined to that membrane, but extended, at least in some of them, to the bone itself. If, however, the bone was affected at all, in the first instance, the inflammation was confined to its surface, as in none of the cases was there produced necrosis or death of the whole cylinder of the bone, where a new shaft is formed and completely surrounds the old, from one epiphysis to the other. The only case where the disease extended any way into the medulla of the bone was the first, where, certainly, on a cursory view of it, the upper third of the femur had very much the appearance, as if a perfect circle of

new bone had been formed, and surrounded the old. This, however, on more accurate examination, I am satisfied, was not the case.

In inflammation of the periosteum that membrane becomes thicker, more vascular, and loses its transparency. It is probable that in the most acute cases both the upper and under surfaces are affected, and the pus, being almost immediately formed, makes its way outward, and affects the soft parts much sooner than occurs when the matter is situated only beneath the membrane. Sir A. Cooper says, that when this takes place, it is a long time before the periosteum ulcerates; and the disease has not the characters of an acute affection.* It would appear, that in acute periostitis effusion of sero-purulent matters takes place very early, and the membrane is detached from the bone to a greater or less extent, according to the extent of the inflammation. Suppuration, however, does not necessarily take place in mild cases; and when it does, and the periosteum, is separated, the bone does not necessarily die. In the boy Kelly, although very well marked symptoms of acute periostitis of the tibia occurred, these, by leeching and cold applications, were subdued, and no suppuration followed; and I have seen two cases of the disease in the femur ending in profuse suppuration, without any exfoliation of bone. When the symptoms are well-marked, and no suppuration takes place, I would consider that the inflammation had been confined to the upper surface of the periosteum.

The pain in periostitis is deep-seated, very severe, felt along the whole shaft of the bone, and subject to exacerbations. Sometimes when it affects the tibia, or any bone with slight covering of the soft parts, there is a blush of redness on the skin, and very soon, effusion into the cellular substance. In general, however, particularly in the thigh, it is some time before the integuments show any appearance of disease; and if no incisions are made, it is long after suppuration takes place, before the matter reaches the surface. The limb assumes more of an œdematous appearance, and the whole cellular substance is infiltrated before the integuments give way; hence the necessity for early incisions. The skin at last inflames, and ulcerates in various places. If the patient survive the effects of the profuse suppuration and great destruction of parts, and the disease lapse into a chronic stage, spongy granulations spring up at these various openings, and they usually become fistulous sores leading to the diseased bone.

It is worthy of remark, the different appearances which a limb presents on the first invasion of periostitis, from that exhibited when the inflammation is in the skin, or in the fascia. In the former there is no redness of the integuments; there is very little swelling; there is no tension whatever; but there is excruciating deep-seated pain. This last, therefore, is the most prominent symptom in this affection. The absence of redness of the integuments, while there is such acute pain, has got for it, among the common people, the name of the 'White Rose.' I speak of the disease at its *commencement*. In inflammation of the parts not so deep-seated, as of the fascia, or of the parts immediately below the fascia, there will be very great tension; there will be more swelling and some superficial redness, and probably serious effusion; but the pain, though great from the tension and binding down of the fascia, will not be so acute as in the former case. Here the most prominent symptom is the tension or firm swelling of the part. While again, in affections of the parts still more superficial, as of the skin, or of the tissue immediately below it, the principal diagnostic mark is the great redness of the integuments,—the fiery redness, the burning or itching pain, and the loose swelling, without so much tension as in the last case. In this third species of inflammatory affection, the redness is the most distinctive feature. Now all these inflammations have been named by different authors erysipelas, particularly the last two; because these are often combined by the time the surgeon is

* "Cooper's Lectures, p. 630."

called in. Hence the great confusion and difference of opinion with regard to the seat, appearances, and treatment of erysipelas. I think it is Mr. Copland Hutchison who says, that erysipelas sometimes commences in the periosteum. The term erysipelas should be confined to the last-described affection, dividing it of course into the simple and phlegmonous, according as it is quite superficial, or more deeply situated; the second mentioned should be called fascial or subfascial inflammation; and when the periosteum is affected, periostitis is a very proper appellation.

The cases given above exhibit the disease in its *acute* form. When the disease is of a more chronic character, it commences more insidiously, proceeds very slowly, and I think does not so generally terminate in suppuration, or in destruction of the bone. It is more frequently succeeded by a very considerable thickening of the membrane, or an enlargement of the bone itself, which may remain stationary and without much disturbance of the system for many years, unless it be brought into a state of acute inflammation, in consequence of external injury. Such cases, besides, are not attended with fever or much constitutional irritation. They not unfrequently depend on a syphilitic taint, but are often enough met with unconnected with that disorder. The following appears to have been a case of this kind."

Case 4. Elizabeth M'Lean, æt. 21, admitted March 10th.

Whole anterior aspect of middle third of left tibia occupied by a diffused, very firm, indurated swelling, intimately connected with the bone, and acutely painful on pressure, the pain shooting up towards the knee, and most severe during the night; integuments not discoloured; general health unaffected. Five weeks ago she fell and struck the leg against a stone. Little pain was felt at the time, but in a few days afterwards pain and swelling commenced, and have since been increasing. The treatment consisted of leeches, alternative aperients, and blisters. She was dismissed, but returned in a few days complaining of the same deep-seated pain particularly severe during the night, and preventing rest. The upper third of the tibia was now considerably enlarged and acutely painful on pressure. Camphorated mercurial ointment was rubbed on the part morning and evening till the skin became tender, when calomel and opium were given. This was alternated with leeching and blistering, but the disease increased slowly, and an incision, three inches long, was made about the middle of the tibia down to the periosteum, with relief to the pain. No pus was discharged, but a considerable quantity was obtained from another incision in the upper third of the leg. The mouth was slightly affected by mercury. Poultices were applied, the pain in the leg was removed, the wounds granulated and contracted, and were cicatrized on the 8th June, with the exception of a small fistulous opening, through which the probe passed, apparently, into the shaft of the tibia. This was enlarged, but no bone came away whilst she remained in the house. On the 2d July she was dismissed, the health being pretty good, the pain in the leg entirely gone, but a copious discharge continuing from the wound over the tibia. In September the sinus was perfectly closed; no bone had come away, but the whole tibia remained somewhat thickened; the health was good.

Inflammation of the periosteum and deep-seated cellular membrane is far from uncommon. We have seen it many times in the thigh, more rarely in the leg, occasionally in the upper extremities. In the thigh it occasionally puts on a very severe form. The lower part of the thigh and the knee-joint swell more or less suddenly, acute pain follows, then there is effusion into the joint and into the cellular membrane of the limb, suppuration follows within and without the articulation, the cartilages ulcerate, the periosteum is separated from the femur, and the patient dies worn out with pain, and hectic. Of this we have witnessed several examples, and in most, the affection appeared to be rheumatic, or at least to be produced by cold. We could mention some

interesting facts, but our limits forbid us to enter on a subject that would requre more space than we can afford. One point we cannot forbear adverting to, and that is the employment of mercury in these affections. Calomel and opium are most important remedies in the acute inflammation of the periosteum and deep cellular membrane. The only recoveries, so far as we recollect at this moment, which we have witnessed, have been in cases in which it was employed. We are speaking of the affection of the thigh. Of course it must be combined with numerous leeches, and so forth. We are rather surprised that Dr. Weir makes little or no mention of the effects of mercury in these cases.

II.

ST. BARTHOLOMEW'S HOSPITAL.

PLETHORA FROM SUPPRESSED EVACUATIONS.

MR. LAWRENCE, in the report of a clinical lecture in No. 374, of the Lancet, has made some observations on the above subject. He exhibited a specimen of highly inflamed blood taken from a man, "in whom no external evidence of an inflammatory nature existed at the time of its abstraction." The venesection appears to have been performed by the patient's own prescription. this man had been some time in the hospital with a fractured leg, under Mr. Lloyd, before Mr. Lawrence saw him. He had undergone copious general and local depletion, and lived on very low diet. Suppuration had taken place in the fractured limb, and a very copious discharge was the result. Soon after the openings had healed and the discharge had ceased, the patient (ætat. 50) felt himself heated and full, especially about his head. "The man considered himself in a state of plethora and was bled." The blood shewed the true inflammatory characters. The following remarks of Mr. Lawrence are not undeserving of attention.

"It had frequently happened to him, he observed, in this hospital and elsewhere, to see patients who had laboured under profuse local discharges become plethoric, and prone to determinations of blood and internal inflammations when these discharges were suddenly suppressed. This he had seen over and over again under such circumstances in old running ulcers of the leg, more especially if the patients were placed on animal diet and allowed beer, and these determinations would proceed to every degree, up to fatal apoplexy. There was a patient now in 'Henry,' who was in the hospital some years before for inflammation and ulceration of the leg; it was rapidly healed, and in a few days he had a sudden and violent attack of apoplexy; the usual treatment was adopted; he was profusely bled, cupped, leeched, purged, and blistered, but with so little effect, that he (Mr. Lawrence) abandoned all hopes of his recovery; as a last experiment, however, he determined on the employment of mercury in large doses, which was pushed to salivation, and he eventually recovered; but for a long time he was paralytic on one side, and even at present his mouth was somewhat distorted. He had now been seven weeks in the house for a recurrence of the ulceration, and during this time, according as the ulcers were healing, it had been found necessary to bleed him repeatedly, in order to counteract the return of a similar affection to that from which he formerly suffered. The hospital diet table, he was sorry to say, was any thing but judicious; the 'ordinary diet,' for example, consisted of animal food, two pints of good strong beer—not table beer, but much better—with several other good things. As it is on this diet that a patient is placed on admission, and as it may happen that a patient may not be seen immediately after entrance, and meanwhile may labour under acute inflammation, this diet would, of all other things, be the best calculated to aggravate his disease. He had, therefore, made it a general rule, that his patients should be placed, at first, on milk diet for if they were in a condition for beer and meat

the hospital was not the fittest place for their reception."

III.

GRAMPUS HOSPITAL SHIP.

DIFFUSED ANEURISM.

MR. BENNETT, assistant surgeon of the Grampus, has succinctly and clearly reported a case of the above disease, in No. 374, of the Lancet. With the omission of a few unimportant passages, we give the principal part of the case in the words of the reporter.

Case. "John Morgan, ætat. 32, seaman, was admitted on board this hospital on the 28th Sept. 1830. His appearance emaciated and exsanguine; his countenance sallow and anxious. He complained of pain in the situation of a tumour, about fourteen inches in circumference, occupying the lower third and inner side of the *right* thigh, presenting its greatest bulk in that situation, and gradually decreasing forwards to the ham and outer side of the thigh. The circumference of the tumour had a defined, hardened, margin; the summit was tense, elastic, and gave to the touch an evident sense of fluctuation; the integuments retained their natural colour; the leg was somewhat œdematous, and remained flexed, without the power of extension. The patient denied that any morbid appearance, or uneasiness, had existed in the part previous to seven weeks since, when, without assignable cause, the whole leg and foot became swelled and tense, and ultimately 'settled' into the present tumour. Upon the most careful examination no pulsation could be detected in the enlarged surface, except to a slight degree in that position which lay immediately over the seat of the popliteal artery. Pressure obstructing the passage of the blood through the femoral artery produced no diminution in the bulk of the tumour, nor could any sound be detected upon application of the stethoscope. The patient had no recollection of any pulsating tumour having ever appeared in the ham. He had had some severe rigors, and evidently suffered much constitutionally. Under these doubtful circumstances the limb was placed on a pillow, resting on its outer side, and the evaporating lotion applied. On the 29th the tumour being in no way diminished, but rather more tense, the necessity became more apparent of settling the question whether the tumour was occasioned by a collection of matter, or by disease of a more serious character. Preparations were, therefore, made to secure the femoral artery, should the tumour prove aneurismal upon introducing a lancet into its substance. This was done to the depth of an inch in a valvular direction, but with no other result than the escape of a few drops of dark blood. This attempt to ascertain the true nature of the disease having failed, adhesive plaster was placed over the puncture, and the limb restored to a state of rest, without any appearance of a disposition to hæmorrhage.

On the 30th at noon, the patient having moved the limb roughly, and placed it over the side of his bed, about an ounce of fluid blood, unattended by arterial jet, passed from the aperture made in the tumour the day previous, and was easily checked by placing the limb in a quiet position, and by slight pressure with lint. The two following days were passed without any change in the appearance of the tumour, with the exception of a slight apparent extension towards the upper part of the thigh. A probe introduced into the lancet-orifice in the tumour, passed its entire length in every direction without resistance and without hæmorrhage.

On the 3d Oct. the swelling had extended considerably up the thigh, occupying its lower half, was much more tense at its original seat, and gave a more evident sense of fluctuation immediately above the patella. Under these circumstances, Dr. Dobson, principal surgeon to Greenwich Hospital, who attended in consultation on the case declared his opinion, that, taking into consideration the enfeebled powers of the patient, and the mass of disease in which the parts were evidently in-

volved, the removal of the limb gave the only chance of recovery to the patient; and he having given his consent, amputation was performed on the same day by Mr. Bennett, assistant-surgeon to the hospital, in the presence of Dr. Dobson and Mr. Gilchrist. The limb was removed at the upper third of the thigh by the circular incision; about eight or ten ounces of blood were lost during the operation; ligatures were placed on the femoral, profunda, and three minor arteries.

After some vicissitudes of rallying and exhaustion, he sunk the next day (4th) at eleven o'clock at night.

Dissection. "Upon examination of the removed limb, between two and three pints of dark blood, partly coagulated and partly fluid, were found occupying the lower half of the thigh, nearly insulating the lower third of the shaft of the femur, which to the extent of four inches was denuded of periosteum, and presented a honeycomb appearance. The chief volume of effused blood occupied the situation of the muscles (which were nearly absorbed), and in many parts was in contact with the integuments, chiefly so immediately above the patella. Upon pursuing the examination, a fine aneurismal sac, about the size of a pullet's egg, evidently formed by a dilatation of the three structures of the artery, was found on the anterior surface of the popliteal artery; the sac, at its upper third and anterior surface, was rent to the extent of two inches in a transverse direction. Immediately above the torn sac, and externally, appearing to form a portion of it, was a second dilatation of the artery forming a sac, the size of a small walnut, lined with a thick layer of coagulum, and communicating with the larger and torn sac by an opening in size not exceeding a third of the natural calibre of the femoral artery. The cellular tissue of the leg and foot was loaded with serum.

The heart appears to have been in a state of passive dilatation; and the "*right* kidney was placed immediately over the common iliac vessals of the same side."

IV.

ST. THOMAS'S HOSPITAL.

I. Rheumatic Affection of the Chest—Diagnosis between it and Pleuritis. By Dr. Elliotson.

In a late clinical lecture on pleuritis, Dr. Elliotson introduced a case of rheumatic inflammation of the parietes of the chest, by way of comparison or contrast with phlogosis of the pleura—a comparison which is not useless, since the one disease is very often confounded with the other, to the detriment of the patient, by the unnecessary effusion of blood thereby occasioned.

Case. William Key, æt. 19, in William's ward, had been ill a fortnight. At first he had a rheumatism of the left knee, and he now and then has it there still; but he has it particularly about the left acromion, all over the same shoulder, clavicle, and front of the chest. There is great pain of the chest, and considerable tenderness on pressure; and great pain on inspiration, but no cough and no expectoration. Now the existence of pain in the chest, rendered severely cutting on inspiration, might give the idea that the person was labouring under pleuritis. The two diseases, however, are very easily distinguished by any one who has seen rheumatism of the chest before. The diagnosis was this: the pain was not confined to one spot, but more or less diffused over the front of the chest generally; it is rare for the pain of pleuritis to be so diffused. In the next place, there was great heat of the part; in active rheumatism there is generally heat of the part, whether it be situated in a joint or in any other portion of the body. Farther, the pain was increased by the very slightest pressure, such as could not influence the pleura; and not merely between the ribs, but on them—even on the sternum, where the pleura, again, could not be influenced. In pleuritis the pressure must be between the ribs, or if on the ribs must be very strong to give pain, unless in the most violent cases, where the whole parietes suffer as

well as the pleura. The pressure which produced pain in the woman was between the ribs, but in this man the least pressure on the ribs themselves, or even upon the sternum, produced great distress. Fourthly, rheumatism existed also in other parts. From the combination of all these symptoms, particularly from the third, I inferred the nature of the disease. The heat and the diffused pain alone would not have shewn the nature of the disease, because sometimes in pleuritis both those symptoms are present. The fact of rheumatism being in the shoulder would not alone have been decisive, because in some cases of pleuritis we have pain also about the axilla. Nay, the rheumatism in the knees, or other parts, would not have been decisive, because a person may have both pleuritis and rheumatism. The same cause that produces the one disease may produce the other, and is commonly in both—the application of cold, especially with moisture, and when the body is overheated. Taking, however, all these symptoms conjointly, there can be no doubt about the disease. He had no cough, no expectoration—and this still farther illustrated the true nature of the disease; though in some instances of severe rheumatism of the chest there is accidentally a very slight catarrhal affection, which produces a little expectoration—just as much as is often seen in pleuritis. The man was not ordered to bed, and he shewed no distress of countenance; yet in some cases of rheumatism of the chest I have witnessed such indisposition as to confine the patient to bed: for acute rheumatism any where, and therefore in the chest, may occasion this; and I have seen the pain on breathing so great as to occasion much anxiety of countenance.

The *treatment* of the two diseases would be exactly the same in principle; but in the case of rheumatism there would be no occasion for the adoption of such active measures as in the case of pleurisy. Whether a nice diagnosis is necessary or not in any disease, it should invariably be made, because we should always practice our art in the best manner; but there are two reasons why it is important to make a careful diagnosis here; in the first place, in order that you may be enabled to inform the patient and his friends whether there is danger or not—pleurisy being dangerous, while rheumatism is not, except it attack some vital part; and secondly, because, although you employ the same measures in the two diseases, it is not requisite in rheumatism to employ them to the same extent. I ordered no general bleeding for this man, but thirty leeches to be applied on the front of his chest; and as he had rheumatic pains about the shoulder and other parts of the body, I judged constitutional measures requisite—gave him five grains of calomel night and morning. The leeches completely relieved the front of the chest, but the next day I found the same pain in the opposite shoulder (this is the character of acute rheumatism, to leave one part and fly to another), and I ordered the leeches to be applied there. On the following day I found the rheumatism in the neck, and I had leeches applied to that part, and to-day found him infinitely better. He had gone out of doors contrary to my wishes, and has a little sore throat, and still pain in the right shoulder; but the chest is liberated from the disease, and there is little now the matter with him.*

In a preceding part of the same clinical lecture, Dr. Elliotson details minutely a case of pleuritis, and, in fact, gives a dissertation on the complaint, delineating its symptoms as revealed by the common phenomena presented to the eye, and the auscultic indications drawn from the stethoscope. We are glad to see auscultation thus publicly taught in one of our greatest hospitals. Ten years ago we would have been laughed at, if we had predicted such an event. What! That wooden bauble! That tom-foolery! That piece of QUACKERY, introduced into a lecture by any respectable physician! Oh no! the thing is impossible.

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* Med. Gazette.

II. TWO CASES WHERE DEATH WAS OCCASIONED BY EXCESSIVE LOSS OF BLOOD. Dr. ELLIOTSON.

In a clinical lecture delivered by the above talented physician, as reported in the MEDICAL GAZETTE, we find the following cases, which we shall separate from the commentaries made on them.

Case 1. "Abraham Dick, æt. 39, a bargeman, in consequence of violent pains of the head and epistaxis for the preceding fortnight, was cupped at the back of the neck, and between the shoulders, on the 21st ult. with great relief. The day after the cupping, during a fit of vomiting, the scarifications began to bleed afresh, and hæmorrhage ensued to such an amount, in spite of all efforts to stop it, that a very large quantity of blood was lost, and he was therefore brought to the hospital on the 26th, labouring under its effects. There can be no question about the propriety of the cupping, for he had vertigo, drowsiness, violent pain of the head, and the cupping relieved all the symptoms; so that it was the accidental circumstance of hæmorrhage after the bleeding that did the mischief. It appeared that besides this affection he had been subject to vomiting, and likewise to a little cough, but particularly to fits of vomiting, which most likely depended upon the state of the head. The vomiting, however, by the bleeding grew worse, and every thing he took was rejected from the stomach, the act of vomiting being attended with considerable pain. The countenance of the patient corresponded with the effect produced by loss of blood; he was pale, straw-coloured, and complained of great debility, unable to stand or walk; his pulse was low and feeble; he likewise complained of great thirst, which is a common occurrence when there has been any great loss of fluids either by sweating, purging, great flow of urine, or blood-letting. He had now no pain of the head, but on setting up or moving about there was giddiness; this, however, passed off the moment he was laid down. He felt chilly, and sometimes almost fainted; he was also restless and anxious, and his hands were tremulous when I first saw him. On feeling his pulse while he reclined, and also after making him sit up, I found there was a considerable difference, for the moment he sat up the pulse became weak and irregular, but as soon as he again was laid down, it became fuller and regular. I repeated this experiment, and found the same effect; but on a third trial the same circumstance was not observed.

He came in after I had made my visit on the evening of the 26th of October, and he was very properly ordered laudanum and good nourishment. He took thirty minims of tincture of opium, and he was ordered two pints of beef-tea, and two of milk. The case was not one of great intensity, but was decidedly a case of the ill-effects of the loss of blood. He was likewise ordered a tonic, certainly one of the best in restoring the system when it has lost an abundance of blood—iron, and in the form of the subcarbonate. This will not act quickly; so that if you want to produce an immediate effect this would not be a proper remedy. As in the present case, however, there was no immediate urgency, it was very proper to administer the iron, any immediate benefit being intended to be derived from the opium. At his admission the sacrifications were bleeding, but the flow was arrested by pressure. On the 27th it was found that he still vomited; that all his food was rejected; and that he had great pain in the scrobiculus cordis at the moment of vomiting, but at no other time. The pulse was said to be 88 and full, and there was thirst. He appeared to revive at night, but at four o'clock in the morning he coughed, and the hæmorrhage was renewed to such a degree that it was necessary to call the dresser, who again stopped it by pressure. At noon, the vomiting became no better, half a grain of opium was prescribed in substance in the room of the tincture, which had been rejected from his stomach. This quantity of solid opium was ordered to be given every four hours, and from the first dose the vomiting was in some measure checked, and the opium was no longer rejected. He slept that night, and on the following day it

appeared that he had vomited only four times during the twenty-four hours, and that was on coughing or taking food, which is a common circumstance when persons have been subject to severe vomiting. There was less pain when he vomited, and less tenderness also in the epigastric region; it appeared, therefore, that there was rather morbid irritability than an inflammatory condition of the stomach. He still complained of giddiness, but his headach was now but slight; his pulse was 80, full, and rather sharp; hands still tremulous. On the 29th he had slept better, and had only vomited once, shewing the propriety of the treatment. If the vomiting had been supposed to be inflammatory, and there had been considerable and constant tenderness on pressure, leeches would have been applied, but that would have made him worse; whereas, by giving him opium, he was, so far as the vomiting was concerned, better. On the 28th, as he complained of want of sleep, I preferred a full dose to the smaller ones, and substituted for them three grains at once at bed-time, and I allowed him ʒiv. of wine in the 24 hours. A clyster was required on the 29th: I found that he had vomited but once, had slept better, felt stronger. The three grains of opium, the wine, strong beef-tea, milk, and iron, were ordered to be continued daily. On the 30th the report is that he had been rather restless, and complained of a good deal of giddiness; his bowels had been opened by a clyster, which has made him feel better; he had vomited only four times the last 24 hours, and that was when he coughed; the pulse was softer. On the 31st he had passed a very bad night through great restlessness and anxiety. He had also wandered in his conversation, and attempted to leave his bed. At two o'clock, A. M. his nose began to bleed, and continued to do so at intervals till six in the morning, though measures were used to stop it; he lost, however, not more than two or three ounces of blood. At midnight his pulse was very variable at one time, and seemed to be rather full and compressible, and at another time it was almost indistinct. The sister of the ward said that fits of palpitation of the heart came on so violently, that they caused the bed to shake, and that his breathing was performed with great noise, like that of croup, during his sleep. I presume it was stertorous. He was given half a drachm of liquor ammoniæ subcarbonatis every three hours, and three ounces of brandy at intervals, by which he was much relieved, and towards morning he was considerably better. But on visiting him at four o'clock on Sunday afternoon his countenance was still very anxious, and he wandered in his conversation; there was rather more tremor in his hands, and the pulse was sharp and variable, sometimes being a mere thread. At nine o'clock in the evening he was lying perfectly insensible, his eyes fixed, his pupils contracted, his pulse slow and feeble, and respiration taking place at long intervals. He died at half-past ten o'clock."

There was no dissection.

Case 2. "The other case which I shall mention occurred among the women, and the affection of the head from the loss of blood proceeded to actual convulsions, and considerable difficulty must have been experienced in ascertaining the nature of the case. This woman was 19 years of age, and had had two children. She was brought to the hospital on Thursday in a state of insensibility and convulsions, and it appeared that she had been delivered of a child seven weeks before. She was in convulsions of an irregular character, with insensibility and stertorous breathing. She was seen and prescribed for after my visit; 16 ounces of blood were taken from the back of her neck, and 15 grains of extract. coloc. c. were administered, together with an injection, and a cold lotion was applied to her head. No information was given respecting the history of the case: all that was said by the friends was, that she had been seized with convulsions that morning, and became insensible. The natural conclusion certainly was, that this was a case of determination of blood to the head, and the proper indication of cure was to take away blood from

the head. The head, too, was hot; and had she been prescribed for by myself, I have no hesitation in saying that I think it more than likely that I should have treated her in the same way. Her pulse was full; she had laid-in seven weeks; the head was hot; she was in a state of insensibility and convulsions, and the breathing was stertorous, and had she died that day without being cupped—without having blood taken from the head—I think had I been the person I should have blamed myself. But it turned out, when more of her history was known, that the propriety of the treatment was doubtful. When I first saw her the following morning she was in a state of convulsion, with moaning, stupor, and stertorous breathing. Luckily for me, the gentleman who had attended her in her confinement had come to the hospital to see her, and he informed me that she had had excessive flooding in her labor, and that it had been necessary to turn the child, and that at the time of this hæmorrhage she had had a degree of convulsions similar to those now present. He also told me that, although seven weeks had elapsed, she had never recovered her color, and I certainly found her of a deadly white; but notwithstanding that appearance, had I seen her the day before, I should have considered her as a person in an epileptic state, with great stupor, and a tendency to apoplexy, and ascribed the paleness to the epilepsy, in which I have often seen persons ghastly and pale. I found her pulse full, and I should have thought from first feeling it that it justified me in taking blood, at least from her head, had I not been informed by this gentleman that she had had previous flooding, and had I not noticed that besides the fulness the pulse had a peculiar sharpness; certainly it was a hæmorrhagic sharpness, but it was likewise so full as to make me hesitate for a moment, and consider whether I ought not to apply leeches to the head. However, while I was standing at the bed-side considering the history of her case, and taking all the circumstances connected with it into consideration, the character of the pulse altered, it actually became a little irregular, and decidedly weaker, and I very soon saw clearly that it was a case of exhaustion—convulsions from loss of blood.

The treatment to be adopted was at once indicated, namely, to give stimuli and nourishment. I administered, at first, twenty minims of liquor ammoniæ in camphor mixture, and on watching its effects I perceived that it scarcely stimulated her. I repeated it in about twenty minutes, with half a drachm of tincture of opium. I waited perhaps twenty minutes more, and during the whole of this time the pulse was regularly sinking, becoming weaker and weaker, and losing its sharpness: she became colder, and a difficulty of swallowing supervened, so that nothing could be taken into her mouth. I sent for the stomach-pump; but as the stomach, being very weak in these cases, frequently becomes so irritable as to reject nourishment, and render the subsequent administration of medicine and other stimulants fruitless, I attempted to nourish her per rectum, and a quantity of strong beef tea, with four eggs beat up in it, was thrown up the intestine; but the whole was immediately rejected; it was scarcely thrown in before it was discharged. Under these circumstances I at once employed the stomach-pump, and by its means some brandy, wine, and more laudanum, were got into the stomach. I staid in the hospital some few hours, and in the course of that time a considerable quantity of brandy was got down; but she regularly sunk, none of the stimulants making any impression upon her, except in one instance, when the pulse rallied, though in a very slight degree, for a few minutes. With that exception the decline of life was steady and progressive, the breathing became slower, and in the afternoon, about four o'clock, she expired.

No dissection of this case could be obtained, which is the more to be regretted, as we apprehend it would have shewn some curious appearances. But we do not consider ourselves justifiable in stating more than the bare facts, leaving our readers to judge for themselves.

V.

LA CHARITE.

ON THE STATE OF THE LIVER IN MANY CASES OF ICTERUS. By M. CORBIN.

ICTERUS is a disease which is very common, but the causes of the yellow suffusion on the skin, are often very obscure. When evident symptoms of gall-stones do not exist, we have nothing but conjecture as to the change in the regular current of the bile. It may be viscid bile plugging up the ducts—or tumours pressing on them—or inflammation of the duodenum—or other causes of which we are ignorant. The disease is not often fatal, and therefore dissection has not thrown so much light on the pathology of the complaint as on that of some others. It has even been discussed in a "CONCOURS" at Paris, whether the liver itself be always the seat of the cause which induces icterus. We know, indeed, that jaundice will suddenly arise from strong emotions of the mind; but surely this must be from derangement of the biliary apparatus. But to come to facts.

Out of 1800 patients in the wards of LA CHARITE, between the 1st of January, 1828, and the 1st of April, 1830, twenty-two were cases of icterus. From this number were excluded all cases of fugitive or slight tinges of yellow on the skin, from temporary bilious affections or indigestion. The cases were all regular icterus. Ten of them were females and twelve males. Fifteen were cured and seven died—a very great proportion in the mortality, as compared with experience in this country. Some of these seven became complicated with other severe affections before death—others presented nothing but the jaundice. The following is a concise exposé of these seven cases.

1. A young man, twenty-two years of age, died on the 22d August, 1828, in consequence of small pox, which had come on a short time after the commencement of intense jaundice. The liver was of a yellower color than usual, and presented brown granulations interspersed in its substance. The biliary ducts were quite free from obstruction.

Case 2. An old man of 64, entered the wards with jaundice on the 13th February, 1830, and died of peripneumony of the right lung on the 7th of March. The jaundice had nearly disappeared before death. The liver was of a pale yellow color; but the biliary ducts were free from obstruction.

Case 3. A female was affected with encysted ovarian dropsy of both sides for six years. She was seized with icterus ten days before her death, and the complaint had become more and more intense up to that time. The liver had been compressed by the ovarian cyst, and was softer than natural. The organ was pale yellow; but no obstruction could be detected in the ducts.

Case 4. An unmarried female, aged 30 years, had been twice in LA CHARITE for liver affection, and ultimately died there on the 1st of May, 1829. During life, the liver could be felt projecting below the ribs, and appeared tuberculated to the touch. There was ascites, and for four months before death decided jaundice—slight at first, but gradually and regularly becoming more intense.

On dissection, the liver was found enlarged, lobulated, interspersed with round bodies of encephaloid substance, and gorged with bile. Yet the biliary conduits were free from obstruction.

Case 5. A man, 63 years of age, entered the hospital on the 27th of April, 1828, in a state of extreme emaciation and debility. He had cough, and other symptoms of pulmonary affection; but he complained chiefly of pain in the right hypochondrium, which he said, was of long standing. The liver appeared to be considerably enlarged. He was intensely jaundiced.

On dissection, the liver was found to be of great size, and full of tubercles, some of them softened down, and containing a liquid, or soft encephaloid substance. The gall-bladder was enormously distended with green bile. The biliary ducts were entirely free from obstruction.

Case 6. A man, 65 years of age, en-

tered the hospital on the 15th November, 1829, with intense jaundice. He was in such a state of prostration, that little information could be elicited from him. It was ascertained, however, that the jaundice was of fifteen days standing. He died three days afterwards.

Dissection. There was some yellow serum in the cavity of the abdomen. There was redness, but no ulceration in the mucous membrane of the stomach and bowels. The liver rose very high in the right side of the chest, without any apparent cause. It was larger than natural. It was full of tubercles of various sizes, consistencies, and colours. The gall-bladder was distended with bile—but the biliary ducts were pervious and quite free from obstruction.

Case 7. Louis de Moiser, aged 74 years, (formerly Counsellor of Embassy) entered LA CHARITE on the 24th Feb. 1828, his whole surface of a beautiful yellow colour—belle couleur jaune. This had been of ten days' duration. He had lost his appetite, was costive, and extremely weak. The urine was green—the liver appeared enlarged. Leeches were applied, and some medicines were prescribed, which appeared to be of use; but on the 9th of March a diarrhœa occurred and continued for some days—then ceased. After this the legs became œdematous—ascites supervened—and on the 28th of the same month the died.

Dissection. We shall pass over the minute details of pathological appearances unconnected with the present subject. The duodenum was united with the liver, or rather with a cancerous mass appertaining to the liver. "Le duodenum fait corps avec le foie, ou plutôt avec une masse cancéreuse qui tient au foie." This mass was the size of one's fist. The nature of it is somewhat obscurely described. It included part of the pancreas, the biliary ducts, the cervix of the gall-bladder, and a portion of the concave surface of the liver. The biliary ducts were annihilated—or at all events, totally impervious. The gall-bladder was converted into a solid mass, somewhat resembling the substance of the cancerous tumour abovementioned. In its centre was found a small quantity of inspissated bile. The liver itself was studded with encephaloid tubercles. From each incision made into its substance, a quantity of aqueous bile issued forth.

Remarks. We agree with the author of the report that, in only the last case is there a mechanical obstruction to the flow of bile in its natural course to the duodenum, and consequently an unequivocal cause of the icterus. But we much doubt whether an accurate examination would not have detected mechanical obstructions to the course of the bile in some of the other cases. A canal may be obstructed by the contiguity of a tubercle, without the obliteration of that canal; and in this way we have no doubt, that many instances of jaundice are produced. *Archives.*

VI.

DUBLIN LYING-IN HOSPITAL.

ON THE DIAGNOSIS OF PREGNANCIES. By Dr. NAGLE.

Dr. N. has published two cases in the Lancet, where the existence of twins was clearly ascertained by auscultation, sometime before parturition. One of the cases will be a sufficient illustration.

Case. "On the 15th October, a female, aged about 30, and in her first pregnancy, was admitted into the Lying-in Hospital Dublin. The abdomen was, in this case, so enlarged as to lead to the suspicion of twins; and on the next morning my attention was directed to the patient by one of the nurses. Having applied the stethoscope, with a sheet interposed between its sternal extremity and the abdomen, I found a fœtal heart to pulsate strongly, rapidly, and rather irregularly, midway between the umbilicus and the *superior* anterior spinous process of the left ilium. By a minute examination I satisfied myself that the cylinder was applied

immediately over the fœtal heart, with the rhythm of which I took particular care to make myself familiar. I next directed my attention to the other parts of the abdomen, still hearing the pulsations of a fœtal heart, until I came on a point where they were most distinctly audible. This greater distinctness of resonance I found to be nearly under the linea semilunaris, between the umbilicus and the anterior inferior spinous process of the *right* ilium. The pulsations here I immediately recognised to be weaker, less rapid, and less regular in rhythm, varying from 125 to 133 in a minute, whilst those on the left side varied from 160 to 170. The patient labouring under a smart bronchitis, was occasionally attacked with a severe fit of coughing, during which, the abdomen receiving a strong concussion, the pulsations of the fœtal heart, on the right side, were remarkably accelerated, whilst those on the left were scarcely at all affected.

In order to draw a diagnosis, I compared, with as much accuracy as I was capable, the pulsations on both sides with each other, and then each separately with the impulse at the chest, and the pulsations at the wrist, of the mother. The diagnosis was, that there were twins; and I may add, that auscultation induced me to predict, that the head of the second child would present.

The announcement of this discovery was received with considerable interest by some whom I took to examine the case; and Dr. Collins, the highly respectable master of the Hospital, was so satisfied of the accuracy of the diagnosis, that he declared 'he could no longer repose confidence in the stethoscope in the practice of midwifery if the case did not prove to be twins.' The patient, owing to a want of action in the uterus, continued to suffer a tedious, and at times a distressing, labor, until the night of the 20th, when after the use of 45 grains of the ergot of rye, in divided doses, which at first quickened then lowered the pulse, and evidently soon produced some slight action in the uterus, she was delivered of twins, the *heads* of both presenting, the delivery of the second being assisted with the forceps. From the nature and length of the woman's labour both children were dead; the second exhibiting the appearance of having been alive a short time previous to birth. The placenta in this case was single, and had to be removed by art."

In another case he was able to detect the existence of twins, though the female was confident that her child was dead, as she had ceased to feel its motions. As these diagnoses were delivered in a public hospital, there can be no doubt of their authenticity.

VII.

MEATH HOSPITAL, DUBLIN.

ON PAINFUL SWELLINGS OF THE LOWER EXTREMITIES. By Drs. GRAVES, and STOKES.

PURSUING our account of the 5th vol. of the Dublin Hospital Reports, we come to the above subject, which is interesting at the present time, when the pathology of phlegmatia dolens is so much discussed.

Case. Eliza O'Donnel, aged 21, was admitted on the 3d of June, 1829, with symptoms of gastric fever, and severe pain in the right side under the ribs. Thirty leeches afforded some relief, with aperient medicine. 6th. Convalescent—menstruation scanty. 7th. Had been kept awake all the night by pain in the left leg, which was swollen, tender, hot, tense, but not red nor pitting on pressure. The tenderness was greatest along the course of the saphena vein, which felt like a cord. Pulse was 108 and hard—tongue brown and dry—much thirst.—Twenty leeches were applied along the course of the saphena vein—calomel and opium—hip-bath. The next day she was greatly relieved; and, in a few days, her mouth was affected by the mercury, and the pain subsided in the limb, which had decreased considerably in size, was less tense, *and pitted on pressure.*

"In this case a decided tendency to a

recurrence of the affection was observed, and the pain, tenderness, and swelling returned several times, but in a less severe form, and generally yielded to the application of leeches and stupes. The pain in one attack was greatest in the calf of the leg, in another at the instep, and in a third at the middle of the thigh. The disease in the left leg, after continuing with intermissions for three weeks, subsided, leaving, however, the limb considerably swollen, and the patient in a state of emaciation and exhaustion.

On the 28th of June, a nearly similar train of local symptoms commenced in the right leg, attended with so much constitutional irritation and debility, that we were apprehensive of the result.

The violence of the symptoms, however, subsided after the application of twenty leeches, and the use of remedies hereafter to be mentioned, so that, although her convalescence was tedious, the local symptoms had disappeared before the middle of July."

It is worthy of remark that, when leeches were applied during the swollen state of the limb, a large quantity of serous fluid flowed from the bites, before any red blood made its appearance. During this state also, the swelling of the member was by no means uniform, often simulating most perfectly the fluctuation caused by an abscess immediately under the integuments. The following remarks are particularly interesting at the present time.

"An accurate observation of numerous cases both of phlegmasia dolens occurring after delivery, and of painful swelling of the extremities appearing during or after fever,* has satisfied us of the pathological identity of the two diseases. In both œdema occurs, unattended by redness, but accompanied by increase of heat, with great tenderness and pain, and followed for a considerable time by impaired motion of the limb.

In both diseases the swelling and other symptoms are frequently not confined to any one portion of the extremity, but extend uniformly over the leg and thigh. In both diseases, however, we have also often observed, that the pain, heat, and swelling, occupied particular parts of the limb, while the rest was comparatively free from disease. Thus in some cases a portion of the thigh was intensely engaged, while the leg and foot remained free, and after some days the diseased action seemed to change its place, and successively attacked the other portions of the limb, without, however, any precise order in the mode of succession. In consequence of this, our treatment has been directed to different portions of the limb, according to the situation of the disease; and we constantly found that the degree of swelling in the part attacked was proportioned to the accompanying heat, pain, and tenderness. In some cases we have observed this affection to be attended by a cordy and painful state of the saphena vein, proving that it participated in the disease; but as this state of the vein, where it did occur, was in some cases subsequent to the disease of the other parts of the limb; and as in the majority of our cases of phlegmasia dolens, and in the painful swelling of the extremity after fever in the male and female subject, no such affection of the saphena occurred, we think that the latter cannot in justice be considered as the cause of the disease. The occasional occurrence of the swelling in the inferior portion of the limb in the first instance, and its erratic nature, militate against the idea that the disease proceeds from an affection of the large venous trunks; and in two instances we have seen the disease desert its original seat, and concentrate itself in the knee-joint, producing obstinate inflammation of the part, which in one case, that of a male after fever, terminated in anchylosis, and in the other, that of a female who laboured under true phlegmasia dolens after delivery, the same unfortunate result was with difficulty arrested.

As the latter occurrence, and many obvious considerations, leave little doubt con-

* Dr. Tweedie, Edinburgh Medical and Surgical Journal, No. 97.

cerning the inflammatory nature of the disease; it remains to be considered what are the parts engaged. To us it would appear that *the subcutaneous cellular tissue is primarily affected*, sometimes generally, at others partially. It is not unusual to meet with cases either of general or local anasarca evidently of an inflammatory origin, accompanied by pain and heat, but unattended by redness. The external and vascular layer of the corium remaining uninflamed, will account for the absence of redness in this disease, as well as in the inflammatory anasarca.

The cellular tissue seems to follow the same law as serous membranes. Moderately inflamed it effuses an unusual quantity of its natural secretion, *serum*. When the irritation is more intense, the effusion is also altered; it contains more animal matter, approaching in its qualities to coagulable lymph, and sometimes it is of a puriform nature. It is to be remarked, that suppuration has occasionally been observed in phlegmasia dolens when very intense, but usually the effusion appears to be the result of an intermediate degree of inflammation between that which produces puriform and merely serous effusion. The swelling is consequently more apt to produce by means of the coagulable matter contained in the effusion, considerable hardness arising from the consolidation of the cellular tissue. A state of parts not observed in the beginning or termination of the disease, when the inflammation is more moderate, which we have frequently pointed out to our pupils both in phlegmasia dolens and the painful swelling of the extremity after fever. Did space permit, further arguments might be adduced from considering the pathology of Barbadoes leg, and the disease termed berri berri in Ceylon."

In respect to treatment, our authors depend chiefly on fomentations, leeches, narcotics—and after the inflammatory symptoms have subsided, they use bandages, tonics, and diuretics. When the knee is attacked, frequent leechings, blisterings, and the inclined plane are necessary. Salivation is questionable.

A case occurred subsequent to the above, which we shall put on record, *without abridgement*, because it militates against the doctrine which we have always maintained respecting phlegmasia dolens. We never withhold facts that seem to run counter to our own theories.

"A young man of a strong habit was employed for two successive days in working in a ditch, and was consequently obliged to stand in water above his knees during that time. On the following day he became affected with lassitude, vertigo, and general weakness, and complained of severe pain in the right thigh. These symptoms continued for seven days, when he was admitted into the Meath Hospital.

On admission his countenance was anxious and depressed; the tongue furred; thirst; headach; urine scanty, turbid, and high-coloured; pulse 96; skin mottled with petechiæ. In addition to these general symptoms his respiration was observed to be laboured and unequal, with some cough; face very livid. But his chief complaint was a severe pain in the upper and anterior portion of the right thigh, which was greatly aggravated by motion or pressure. He had also severe pain in the left hypochondrium, increased by inspiration or cough.

At this time no swelling whatever of the limb could be detected; but in the course of two days the upper portion of the thigh became evidently swollen, the part being extremely tender, elastic, but not at all red. The pain of the side contiuued, and extensive bronchial and pneumonic inflammation was detected. General bleeding, and very free leeching to the limb, was employed. The blood was not inflammatory, and no relief was experienced by the patient. The swelling of the thigh increased; calomel and opium were freely exhibited, but without any effect. The typhoid symptoms increased, and the patient died on the fourth day after his admission.

On dissection we found the right lower extremity swollen, and tense in its superior portion, while the leg and foot were slightly anasarcous. The sac of the pericardium contained some sero-purulent fluid, and that portion covering the auricles and great vessels was vascular, and in many places covered

with coagulable lymph. Both lungs were in a state of extreme sanguineous congestion, with commencing solidity in their postero-inferior portion, and general inflammation of the pleura, as shewn by a reticular exudation of coagulable lymph, which occurred in greatest quantity in the most inferior portions. The bronchial mucous membrane was universally red, and the tubes filled with frothy mucus. No disease could be detected in the lining membrane of the heart. The right ventricle contained a fibrinous coagulum of the usual appearance. The gastro-intestinal system appeared remarkably healthy, except in the great extremity of the stomach, where the mucous membrane presented a dotted red colour. The spleen enlarged, flabby and pale, was found in a state of purulent infiltration, bearing some resemblance to the lung in the third stage of acute pneumonia.

The vena cava contained a few portions of a substance of a granular appearance, friable and of a yellowish colour. These did not adhere to the vessel, which otherwise appeared healthy. In the external iliac vein, however, we found, just above Poupart's ligament, a large concretion of a similar nature, nearly plugging up the vessel, and extending into some of the minute collateral branches. The lining membrane was red, and in one point adhered to the coagulum. No puriform matter could be detected. The femoral and popliteal veins were healthy, as also the arteries. The cellular tissue of the limb was pale and œdematous.

It cannot be denied that this case is strongly corroborative of the opinion before entertained, and lately insisted on by Tommasini, that the phlegmasia alba dolens is in reality owing to phlebitis."

Setting aside the petechial fever, and the numerous inflammatory affections found in various parts of the body, the fact of the disease proving fatal in eleven days is so totally at variance with general experience in phlegmasia dolens, that this single fact alone is quite sufficient to destroy all supposed identity of the two diseases. We appeal to every practitioner of any experience as to the justice of this remark.

We return the talented reporters many thanks for these valuable cases.

II. GANGRENOUS ERYSIPELAS.

James Keogh, a sawyer, æt. 34, became a patient of Mr. M'Namara in the Meath Hospital, in consequence of gangrenous erysipelas, which destroyed the whole of the integuments of the arm, forearm, and a portion of those of the hand; he was suffering from hectic in an extreme degree, with a quick, small, and very irregular pulse; indeed so far were the powers of life reduced, that the proposal of removing the arm at the shoulder-joint appeared to many a very hazardous measure, an opinion that, I confess, I agreed in, seeing how small a quantity of blood the loss of which would be sufficient to deprive such a patient of life, an opinion that was strengthened by the length and severity of two operations I had seen elsewhere performed.

The patient was carried into the operating theatre in his bed, on Saturday, the 18th of September last, and having been placed sitting on the side of it, Mr. M'Namara commenced the operation, by making a flap of the deltoid muscle, in the manner recommended by De La Faye; he then cut into the joint, dislocated the bone, and finished the operation by bringing out his knife behind the bone, making the inferior flap by one stroke of the instrument. The axillary artery, the circumflex arteries, and one or two inconsiderable vessels, were now secured, and the flaps were brought together by means of adhesive plaster and sutures. An anodyne draught was administered, though I could not say that the patient suffered extreme pain either during the operation or after it; indeed his sufferings were of so short duration, the cutting part occupying but a minute and a half, that I think I am warranted in saying, that amputation at the shoulder-joint is attended with as little pain as a common amputation, and (if I am to judge from the present case, which undoubtedly was a good specimen of Irish surgery), with certainly less hæmorrhage, in so much that more than two ounces

of blood were not lost on the occasion. It is also worthy of remark, that the axillary vein did not bleed.

It is unnecessary to occupy your valuable space by a detailed account of the treatment, which did not embrace any thing out of the ordinary course pursued in such cases; the man has hourly gained strength; the ligatures have all come away; and the wound is now, ten days from the operation, nearly healed. There are one or two observations with which I shall trouble you on the present case; and first it is obvious how much the debility here may, relatively, be produced by the presence of an extensively suppurating surface, over which the constitution was incapable of exerting any salutary control; secondly, how little we should permit ourselves to be influenced by this apparent debility, which will certainly disappear as soon as its cause is removed; thirdly, how unnecessary the tying of the axillary artery or vein is, as a preliminary step to the performance of the operation; and, lastly, how uncalled for is the removal of the cartilage from the glenoid cavity, a practice which has been adopted from the fear of the occurrence of subsequent inflammation and disease, which, from a reference to this and other cases, I am warranted in saying never occur.

III. Œdema of the Larynx—Tracheotomy.

William Kenny, aged 47, of a bilious temperament, admitted on the 16th Sept. stated, that about three o'clock on the evening before, he had been attacked by a rigor, which was succeeded by sore throat; that previous to this he had always enjoyed good health, with the exception of a slight pulmonary catarrh of some years' standing; that at midnight he awoke, unable to swallow; his breathing extremely difficult, noisy, and accompanied by a slight cough. For the relief of these symptoms he used a muriatic acid gargle. Present state: voice husky in the highest degree; breathing deep, slow, remarkably loud, and attended with considerable muco-sibilous râle, cough, accompanied with mucous expectoration; deglutition impossible, as far as regards solids, and a considerable portion of any fluid was even regurgitated through the nares; the larynx very tender upon pressure; 28 ounces of blood were immediately drawn from the arm, and he was ordered to take two grains of tartarized antimony every hour in solution. Noon; breathing less loud; pulse 128, soft; skin moist; has vomited frequently some billious matter; his condition, however, is not improved. Seven o'clock, p.m.; oppression of breathing so great, that the patient expressed himself incapable of existing; cough troublesome; stridulous respiration increased considerably; pulse quick; extremities cold; upper part of the body bedewed with sweat; integuments of the neck considerably swollen from œdema; deglutition entirely obstructed. On examining the fauces, Mr. M'Namara discovered a tumour of the size of a large walnut, formed by the integuments of the epiglottis, which had become œdematous, and from its situation capable of completely obstructing deglutition whenever the patient made an effort to swallow; it did not, however, obstruct respiration, inasmuch as it stood erect in the fauces, and could not be laid down upon the rima glottidis; it however followed the motion of the tongue, and thus became an impediment to deglutition when that organ was moved backwards, occupying the pharynx, rendering it impossible for food to pass downwards. Considering that the integuments of the other parts of the larynx were in the same state, and the man must be suffocated if some effort were not made to admit air to the lungs, Mr. M'Namara determined upon performing the operation of tracheotomy immediately. The patient having been properly placed, and the usual incision made in the integuments, the trachea was now laid bare at a depth of fully two inches and a half below the surface; to such an extent had the œdema proceeded; the tube was easily perforated, but on endeavouring to turn the knife in order to enlarge the wound by dividing the cartilages, he found it impossible, without risking the breaking of the instrument, as they were ossified; he there-

fore enlarged the wound with a pair of scissors, the rings of the trachea giving audible evidence of their ossification on being cut through; there was not any bleeding of consequence during the operation, and the man was put to bed expressing how completely he felt himself relieved. He was ordered four grains of calomel every second hour, and to inhale the steam of warm water during the night.

17th. The patient breathed partly through the wound and by the larynx; the croupy sound of respiration lessened, and deglutition gradually improved; swelling of the epiglottis much less; pulse 112; respiration 24; skin moist; bowels moved; no thirst; tongue clean, and no appearance of ptyalism, though half a drachm of calomel had been taken during the night. Repeat the calomel. A silver tube was placed in the wound.

18th. The respiration was natural; the tongue clean; pulse 90; bowels moved three times: the epiglottis has subsided to its natural size; integuments of the neck also much less; had some sleep during the night; the calomel was now discontinued, and he was ordered a draught, consisting of an ounce of the infusion of roses, a drachm of Epsom salts, and the same of tincture of jalap.

It is unnecessary to report further on this case, inasmuch as he is rapidly improving, complaining of no inconvenience but what results from the soreness of his mouth. The tube he occasionally introduces himself, and there is every reason to think that he will be able shortly to relinquish it altogether; nor need I impress upon you, Mr. Editor, the advantage of an early operation in cases of œdema of the larynx.*

The second case exemplifies the good effects of tracheotomy in saving life, when any sudden inflammatory affection obstructs the air-passage. We have seen several lives sacrificed from the fear of performing this operation, which, though not without its difficulties, is perfectly free from danger.

* Reported by Mr. Beetham, in No. 377 of the Lancet.

VIII.

ST. GEORGE'S HOSPITAL.

CASES OF FISTULA PERINEI.

THE last three reports from this hospital have been devoted to the consideration of injuries of the head. Circumstances prevent us from continuing it at present, as we had intended, but we shall endeavor to resume it at the earliest opportunity. We may take the present opportunity of relating a few cases of fistula perinei that have lately been treated at the hospital. We have nothing new to offer on such a disease, indeed we wish that we had, for it constitutes too frequently an opprobrium to surgery and surgeons. The principles of treatment are obvious enough, the practice is too often unsuccessful. We may mention one or two slighter cases in the first instance.

CASE I.—*Fistula anterior to Scrotum, after the passage of a Calculus per Urethram.* Wm. Marshall, æt. 15, a delicate-looking boy, admitted, March 17, 1830, under the care of Mr. Hawkins.

Fistulous opening leading into the urethra, in the integuments anterior to the scrotum—urethra much contracted anterior to the fistula—natural phymosis—health pretty good. Four months ago had retention of urine, and says that a stone was discharged per urethram. Some time afterwards, an abscess formed anterior to the scrotum, and the present fistula was the result. The treatment consisted in the regular passage of a catheter; and, some pyrexia arising, the exhibition of salines. On the 8th May, the report states that a catheter had for some time been kept in the bladder, and the fistulous opening was smaller. The edges, being very hard and contracted, were touched on the day mentioned with the potassa fusa. Within the last few days, an abscess had been forming in the right side of the perineum, near the anus. The boy stated that, two years previously, an abscess had formed in the perineum, and discharged itself into the urethra. In a few days the abscess was opened, and a little fetid pus

discharged. The catheter was now retained in the bladder. Whenever it became obstructed it was withdrawn, and not reintroduced for a day or two; the edges of the fistulous opening were touched twice a week with the nitrate of silver. Little progress was made, the health began to suffer, the boy became rather hectic, and on the 6th June he was discharged, for the purpose of obtaining a change of air. There was every reason to suspect him of the vice of masturbation.

CASE 2.—*Fistula Perinei from tying a String round the Penis—Operation.*

Alexander Wilday, ætat. 9, admitted April 7th, 1830, under Mr. Brodie.

Last Christmas, in order to amaze his school-fellows, he tied a ligature round the penis, just behind the glans. He had previously natural phymosis. Much inflammation ensued beyond the ligature, which appears to have passed through the skin by ulceration, before it was cut away by a surgeon. Swelling and abscess at the root of the scrotum ensued, and the present fistula was the consequence. The fistulous opening is of moderate size, and situated just anterior to the scrotum. All the urine is discharged through it. There is contraction of the urethra anterior to the fistula. Prepuce, which is phymosed, thickened and redundant. Health very good.

On the 10th, the prepuce was divided, and the cut edges of integument, on each side, united by ligatures. This operation succeeded well enough for the phymosis. On the 13th, an operation was performed for the relief of the fistula. Its edges were pared with a scalpel, and brought together transversely by three sutures, which were made to avoid the urethra. The edges were in good apposition, and were so maintained by sticking-plaster. For two or three days the urine passed through the natural channel, and it was thought that union of the edges of the fistula would take place. We should mention that a catheter was kept in the bladder, but it occasioned a good deal of irritation. On the 16th, the ligatures were cut away; there was tenderness and soreness of the parts around, and it was difficult to determine whether any urine passed through the wound or not. A few more days determined that the operation was ineffectual, and urine issued through the fistula. It was attempted to retain a catheter in the bladder, but this occasioned so much irritation in the bladder, that it was withdrawn. As generally happens, the urine escaped by the side of the instrument. On the 14th, a small silver catheter, about three inches in length, with the extremity rounded like a probe, and perforated in the centre, was introduced into the urethra, and retained there by tapes; at the same time, the edges of the fistula were very gently touched with the actual cautery. The opening, however, did not contract beyond a certain point, and this plan answered no better than the preceding. After this, a series of graduated probes were employed to dilate the urethra, leaving the fistula alone. The probe was passed down the urethra daily, and retained in it for about a quarter of an hour. In November the lad was made an out-patient, the same system being still pursued. We cannot say that, when we saw him last, we perceived any great amendment. The edges of the fistula were contracted, and puckered, and indurated, and the penis somewhat constricted at the part.

CASE 3.—*Fistula Perinei after Contusion—various Operations—Death.*

Jas. Young, æt. 39, admitted, April 28th, 1830, under Mr. Keate.

Constant dribbling of urine from a fistulous opening, about the size of a pea, in perineo, exactly at the posterior root of the scrotum. From that to within half an inch of the anus is the cicatrix of a former incision, in the direction of the urethra; parts around inflamed from the contact of urine. Never passes urine through the penis, but it is projected with much force, and in a very small stream, from the fistulous opening, when he attempts to make water. Slight discharge from the orificium urethræ

on taking cold—in coition, the semen is discharged through the fistula. Health tolerably good, but he does not feel strong.

He is a bricklayer, and has been for the last few years in Egypt, in the service of Mehmet Ali. Fifteen months ago he fell astride the hand rail of a staircase, and injured the perineum, considerable swelling of which ensued. Leeches, &c. were employed, and a French surgeon at Cairo attempted to introduce a catheter but failed. Effusion of urine into the cellular membrane on the inside of the left thigh succeeded, scarifications were employed, several attacks of retention of urine followed, and a variety of incisions and operations appear to have been resorted to. He has had the present fistulous opening for nine months; has been incapable of passing any water through the penis for five.

An attempt was made early in May, and another on the 10th, to pass an instrument into the bladder. This was not accomplished, the instrument not being introduced more than half an inch beyond the fistulous opening. On the 14th, Mr. Keate made an ineffectual attempt to find the portion of the urethra leading from the fistula to the bladder. A catheter was passed as far as the fistula, there cut down on, and the channel of the urethra thus exposed. Beyond this, however, all was obscurity, for a false passage appeared to debouche from the left of the fistula to half an inch beyond it, whilst the remainder of the urethra presented a semi-cartilaginous condition. The wound was dressed with lint and the patient removed to bed. In the afternoon the house-surgeon succeeded in introducing a small gum catheter from the fistula into the bladder. No water was discharged at first, but in the course of half an hour about a pint and a half came away, and by 12 o'clock next day nearly two quarts. By some accident the catheter slipped out of the bladder, and could never afterwards be re-introduced. On the 17th one or two unsuccessful attempts were made for this purpose. At 5 p.m., he had a rigor followed by vomiting, anxious countenance, and low fever. There were some swelling and hardness around the wound, the surface of which looked sloughy. The sickness persisted on the 18th, and he was ordered salines. On the 19th he only felt nausea. Two unsuccessful attempts were made to introduce a catheter. In the night he had a chill, and next day there was more fever, of a low type. He had much scalding and irritation in the passage of the urine through the fistula, and an abscess appeared to be forming in the perineum. The matter and urine escaped through the fistulous opening, and did not require an incision. The tongue was at this period slightly aphthous, red and glazed at the tip. In the morning of the 25th he had a rigor with nausea, and still more prostration. A dull erysipelatous redness, with much tenderness and some tumefaction had appeared about the perineum and commissure of the thighs. The prepuce was a good deal tumefied, which it had been for two or three days. No doubt the redness of the cutis was indicative of effusion of urine into the subcutaneous cellular membrane. He was ordered an oily injection, and red wine.

On the 26th scarifications were resorted to. The patient was put on bark and ammonia, red wine, and brandy. To check the sickness a mustard poultice was placed on the epigastrium, but it did not answer. Next day the symptoms were very low, and there was a disposition to hiccup. The discolouration of the integuments was somewhat diminished. An incision was made on the right of the wound in the perineum, but no fluid was discharged. An unsuccessful attempt was made to pass an instrument from the wound into the bladder. On the 28th, a fresh effusion into the scrotum—excessive irritability and restlessness—general symptoms of typhus—occasional vomiting of greenish fluid. More scarifications were made in the scrotum, the cellular membrane of which looked white and sloughy, and was infiltrated with urine. The scarifications were repeated in the evening. On the next day there was considerable tumefaction and pain on pressure above the pubes and towards the left grion. The patient was very low indeed, and the retching continued, with some pain at the

umbilicus. At midnight he died.

Sectio Cadaveris. A little more serum than usual in the pelvis—no inflammation of the peritoneum. Liver pale and very flabby—kidneys very flabby and pale—pelvis of the ureters and infundibula enlarged, their lining membrane thickened and bearing marks of chronic inflammation—ureters dilated and their parietes thickened—both ureters and pelvis of kidneys containing a mixture of pus and urine.

Bladder contracted yet still capacious; much thickened; its inner membrane corrugated; containing a mixture of pus and urine. In the prostate a considerable collection of pus, but not in a distinct cyst or abscess being contained in the ducts and structure of the gland. Urethra, from the bladder to the fistula perinei, very capacious. At the latter part it became so contracted that no instrument could be got from the fistula into the bladder.

No effusion of urine in the deep cellular membrane of the perineum or pelvis—some effusion, and a softened state of the tissure in the subcutaneous cellular membrane over the pubes and right groin.

Thoracic viscera healthy. Cranium not examined.

CASE 4. *Urinous Abscess ending in Fistula Perinei, after Stricture for* 18 *years—Death.*

Robert White, æt. 59, admitted July 14, 1830, under the care of Mr. Babington.

Swelling, the size of a duck's egg, in the centre of the inferior part of the scrotum, and having the characters of abscess—no swelling of the perineum. General symptoms rather low and typhoid—looks unhealthy. Has had stricture for 18 years, and bougies have been frequently introduced. The present symptoms have been coming on for a fortnight or three weeks.

The swelling was punctured with a lancet, and foul urinous matter was discharged, There was much lymph deposited at the sides of the abscess. A small catheter, without a stilet, was passed with little difficulty into the bladder. It appeared to pass through a gristly false passage, and some pus escaped through it previous to the exit of the urine. The quantity of the latter was remarkably small. The catheter was kept in the bladder at night, and a poultice was applied. Low symptoms set in, and the patient was ordered the diffusible stimuli, with wine and porter. The abscess in the scotum, which was extensive, was syringed out with the solut. sod. chlor. and stuffed with carrot poultice. The instrument was passed into the bladder without difficulty night and morning, but the urine was always remarkably scanty and at times contained pus. The symptoms became lower and more typhoid, there was a tendency to nausea and to diarrhœa. Before his death, which occurred on the 23d, the instrument, introduced into the urethra, passed out at the wound in the scrotum.

Sectio Cadaveris. Body not excessively emaciated.

Kidneys large, pale, flabby, mottled in colour, with small yellowish spots in their structure. On section they looked not unlike Castile soap, but were paler. Some portions were injected with blood-vessels; others exhibited a deposition, apparently of partly organized lymph; the distinction of cortical and medullary substance was obscured. The whole exhibited, no doubt, a specimen of chronic inflammation of the kidneys. The mucous membrane of the pelvis and ureters was thickened, injected, with some lymph upon its surface. The ureters were not dilated. Bladder small, contracted, thickened, its inner membrane in a state of chronic inflammation. Urethra much dilated to the bulb. Beyond this the proper canal of the urethra was entirely obstructed, but a false passage extended from anterior to the obstruction, along the side of the natural channel, and opened into the bladder beneath the caput gallinaginis. The obstructed part of the urethra was of a gristly hardness. The tunica vaginalis of the testis was united with the thick walls of the slougy scrotal abscess, which of course, communicated, with the urethra. The testicles were healthy.

There was nothing particular in the thorax, and the cranium was not examined.

CASE 5. *Numerous Fistulous openings in the Perineum—Stricture for 20 years—Death.*

William Lord, æt. 68, admitted June 2d, 1830, under the care of Mr. Babington.

Has numerous fistulous orifices in the perineum, scrotum, (especially the right side,) and one over the right abdominal ring, through all of which the urine escapes. Aspect squalid and cachectic. By his own account, no urine has passed through the meatus for nearly ten years, during which time he has had the fistulæ. Has had stricture for twenty years.

On the 5th the sinuses in the perineum were laid open, in order to give a more ready exit to the urine, and prevent it from passing along the sinuses upwards to the pubes. On the 11th, he had two very severe rigors; the integuments of the perineum were red, and the wounds were looking sloughy. He was ordered æther and camphor, with poultices. On the 14th, the cellular membrane of the perineum and posterior part of the scrotum was evidently infiltrated with urine, and the former was inclined to slough. He had been sick in the morning. Yeast poultices—bark and liq. op. sedativ. On the 15th he was extremely low. The cellular membrane of the perineum was sloughing, and the urinous infiltration was extending in the dependent parts of the skin, with an erythematous blush of the integuments. Wine and brandy, a muriatic acid lotion, and a poultice were ordered. The sloughing in the perineum was arrested, and the general symptoms were for a few days mitigated. In the afternoon of the 17th he had a rigor, and from this till the 20th he gradually declined. The symptoms were low and typhoid, he had a feeble intermitting pulse, a dry glazed tongue, and much despondency. The fistulous sores in the perineum were sloughy, with red inflamed cutis around them. In the evening of the 20th he died.

Sectio Cadaveris. Body emaciated. Integuments of whole perineum removed by ulceration and sloughing. The latter had not penetrated beyond the subcutaneous cellular membrane, but sinuses ran more deeply in various directions. One wound round the penis on the left, and debouched into a large opening on the right side of the pubes. Another passed between the left crus penis and corpus spongiosum. The anterior portion of the urethra ended about the root of the penis in a perfect cul-de-sac. Beyond this, for an inch and a quarter, was a solid callous mass, in which the corpora cavernosa and spongiosum were blended and no canal remained. About this spot were numerous sinuses.

The bladder was very capacious, not much thickened, free from ulceration. The membranous part of the urethra was dilated. About two inches anterior to the caput gallinaginis the membranous part of the urethra ended in two large apertures leading to the perineum near the arch of the pubes. These openings, originally formed by ulceration, led through the upper part of the urethra, for here, the crura having diverged, the corpus spongiosum was not surmounted by the corpora cavernosa.

Kidneys small, puckered. The left studded with small vesicles, and having one or two soft portions not unlike the medullary disease. The right kidney was in much the same state, but exhibited more of this altered structure, and in a few places there were something like the scrofulous tubercles in its structure.

Liver very soft and of nutmeg colour. Heart flabby, rather large.

We might mention more instances of fistula perinei, but that would be unnecessary. Enough has been said to prove that these cases are extremely troublesome, too often fatal. The principles of treatment, surgical treatment, are two: first, to restore the urethra as nearly as possible to its natural condition; secondly, to heal the fistula by means directed more particularly to it. All authors have agreed that a great many fistulæ in perineo may be cured by simple dilatation of the urethra. Suppose, for instance, that a man has a permanent

stricture of no great severity. From some cause or other, retention of urine is induced, the urethra inflames and gives way behind the stricture, there is an urinous abscess in the perineum, it is opened, and there is a sinus or an abscess communicating with the urethra. There can be no question, that if such a case be treated early, mechanical dilatation of the urethra will alone effect a cure of the fistula, if such it can be called. We might mention several such cases, but they must be familiar to all who have seen much of hospital practice. If the fistula be of some standing, dilatation of the urethra is not so efficient, and it then becomes necessary to rouse the callous borders of the fistula itself, and stimulate them to contraction and cicatrization. In the first case upon our list the urethra was dilated tolerably freely, yet the fistula could not be got to close. What is to be done in such a case? The indications are obvious, the means of effecting it not always successful. Surgeons have laid open the fistula, cut it across, scarified the edges, pared them and brought them together, employed stimulating applications, caustic, the actual cautery, &c. Each has occasionally succeeded, all have occasionally failed. Much depends on the state of the constitution, and after the most assiduous surgical attentions have been foiled, invigoration of the health has brought a cure.

In the third grade of fistula there may still be no stricture, or at least not a very severe one, but much loss of substance of the urethra exists. To such, the principle of the Taliacotian operation appears to be peculiarly applicable, and in such this plan proved successful in the hands of Sir Astley Cooper and Mr. Earle.

In the fourth variety, the fistula or fistulæ are more or less ancient, the stricture impermeable, or nearly so. Here it is obvious that the urethra must receive our first and chief attention, and here it is that surgeons are constantly baffled in their operations. The channel of the urethra is nearly or entirely obliterated anterior to the stricture, and no bougie nor other instrument can be passed into the bladder. Whilst the urethra continues thus obstructed, the fistula cannot heal, and should not heal; if the obstruction is removed, it may. But how to remove it? We are not composing a surgical dictionary, and need not enumerate the plans that have at various times been adopted. The operation commonly performed consists in the introduction of an instrument down to the stricture, cutting on that instrument, endeavouring to ascertain the orifice of the portion of the urethra which leads to the bladder, and attempting the passage of an instrument from that orifice into the bladder. If this be effected, time and patience will enable the surgeon to introduce a catheter from the penis into the bladder, to dilate the urethra, and restore its calibre. Then the wound heals, and perhaps the fistula also. Such was the operation attempted in the case of Young, and such we have witnessed on other occasions. It sometimes succeeds but more frequently fails, and the anatomy of the parts, with the changes produced by long-continued stricture, sufficiently explain the causes of failure.

A hospital surgeon, and we believe we may safely suspect that Mr. Mayo is he, has proposed a different method.

The operation, says this able surgeon, of dividing a stricture in the urethra, *situated in the usual seat of stricture*, viz. at the junction of the bulb with the membranous portion, may be performed with great quickness in the following manner:—

Introduce a middle-sized staff into the urethra till it reaches the stricture, then feeling the end of the instrument from the perineum, cut down upon it, the incision made through the integuments being one inch and a half in length, and parallel and close to the raphe, the incision into the urethra being half an inch in length. Withdraw the staff, after having exactly seen and felt where it points when held in the usual position towards the bladder; then thrust the scalpel forward in the line of the contracted and indurated urethra, one-half or three-fourths of an inch. Next introduce along the urethra

a middling-sized catheter, and try if it will pass into the bladder; it probably will; but if it still be obstructed, withdraw it a little, and lengthen the incision that has been already made, if the part beyond be firm and cartilaginous; or from the point where the previous incision began, thrust the knife half an inch forwards, with the edge directed upwards, instead of transversely, as before; the catheter will afterwards certainly find a ready passage onward to the bladder.

The urethra *beyond the stricture* is sure of being opened by incisions made in this manner, provided the operator possess a correct anatomical knowledge of the parts as that portion of the canal is always capacious in such cases, having been dilated by the long-continued pressure of the urine. Those who fail in performing this operation, fail from want of boldness, losing time in endeavouring to find a channel through the stricture by means of a probe or small catheter after the urethra is cut into, which may serve as a guide in the division of the stricture. Such a guide is not needed by one who relies upon sufficient anatomical knowledge, nor should be thought of by the operator, if as is likely, he has already found the urethra impervious to the smallest instruments.

The operation is concluded by fixing the silver catheter in the bladder. The silver catheter had better be removed in forty-eight hours, and an elastic one substituted, which is to be changed for another every day subsequently, till the wound has cicatrized; at which time a urethra is left, which has ind ed some tendency to contract, but which requires only, for the prevention of this consequence, an occasional introduction of a bougie.

This proposal is highly deserving of attention, and we do not doubt that ere long opportunities will offer of testing its merits.

The fifth variety of perineal fistula is we fear beyond the reach of art. Examples of it will be found in the cases of White and Lord, the 4th and 5th upon our list. In this the stricture has existed long, and produced much alteration of the urethra, the fistulæ are perhaps numerous, the cellular membrane of the perineum disorganized, and, which confers its distinctive character on this variety, the bladder or kidneys, or both, are diseased. Under such complications what can be expected? A cure, alas, is beyond the reach of human means, and palliative measures are all that can be safely adopted.

The divisions which we have made of perineal fistulæ are arbitrary, and like all such divisions, objectionable in some instances. But we venture to believe that in a practical point of view they are neither unnecessary nor unjust. It would require far more experience than that to which we can lay claim, to treat even such a subject as this in a precise and yet comprehensive manner.

IX.

EDINBURGH ROYAL IMFIRMARY.

PNEUMO-THORAX.

IT appears that, in the year 1829, the Harveian Society of Edinburgh offered a prize for the best essay on "the Diagnostic Properties of the Stethoscope, illustrated by dissections." Mr. Robert Spittal, then physician's assistant, and now house surgeon of the Royal Infirmary, was the successful candidate—and the result has been a volume or a treatise on auscultation, which now lies on our table. The author modestly enough acknowledges that "the present work presents little that is new to the experienced stethoscopist." He has, however, endeavoured to include all that has been made known on this subject down to the present time, and as the body of cases and dissections may fairly be presumed to have occurred in the Royal Infirmary (though this statement is not officially made) the work forms a valuable manual for the young auscultator. We have prefaced the following case of pneumo-thorax by these few remarks, as we may not have an opportunity of reviewing Mr. Spittal's book in the

regular way—the work being an elementary compilation, and therefore insusceptible of analysis.

Case. "G. I., a man, æt. 38, July 27, 1830.—Has a troublesome cough, which is usually worse during the night, but he has no pain in the chest, except at times when the cough is very severe. Expectoration scanty and muco-purulent. He can lie on either side, but says he is easiest when lying on the right. Complains of general weakness, and perspires profusely during the night. Bowels in general rather slow. Tongue white. Appetite impaired. Great thirst. Pulse 120. Skin hot. Emaciation considerable

Reports that his complaints commenced about six weeks ago, after exposure to cold and wet.

28th. Sound of vesicular respiration heard, generally faint, over both sides of the chest. Sound on percussion good.

August 7th. Yesterday he suddenly became affected with severe pain in the left shoulder, and extending down that side of chest, accompanied with difficulty of breathing.

21st. Percussion over the anterior part of left side of chest, when lying in bed, louder than over the right side; and metallic resononce is heard there.

23d. Metallic resonance heard, after coughing, over nearly the whole of the left side, anteriorly and laterally, from 1st to 11th rib. Amphorique respiration is likewise heard in the same situation. Succussion of the chest produces a distinct sound of fluctuation The left side of the chest is much protruded, and the intercostal spaces are widened. Percussion over this side of chest produces a tympanitic sound, even to a low point, when he is sitting up.

Slight tapping upon the chest produces metallic resonance, which is distinctly audible on the application of the stethoscope.

Respiration frequent, but he experiences very little uneasiness. Pulse frequent and soft.

24th. Metallic tinkling heard occasionally on left side of chest, without any effort on his part. Metallic resonance heard as before, after coughing, and, for the most part, after every word or syllable he utters.

Action of the heart cannot be felt by the hand, but is distinctly heard between cartilages of the 3d and 4th ribs on right side.

Sound of respiration heard over right side rather puerile. Cough not very troublesome; expectoration muco-purulent. Pulse 112, small and soft. Skin hot. Lies occasionally on the left side, but prefers lying on the right, which he most usually does. Emaciation increasing.

30th. Febrile symptoms abated. Pulse 92, soft. Respirations 24 in a minute. Cough less. Still prefers lying on the right side. Has occasional paroxysms of dyspnœa. Metallic resonance and amphorique respiration as before. States that a few days ago he heard a "ringing sound" in his chest, after moving himself.

September 5th. Has been daily becoming more emaciated and feeble. Metallic resonance heard to-day as before.

6th. Died about 2 p. m.

8th. *Examination.* Left side of chest still much protruded, and tympanitic on percussion. Metallic resonance is easily produced, by tapping smartly with the finfiers on the sternum; and it is directly heard by the application of the stethoscope to the left side of the chest at the same time. Succussion elicits the sound of fluctuation; and the sound produced by percussion is altered by change of position.

On puncturing the anterior part of the left side of the chest, air was perceived to issue; and, on opening the chest, a large space was found occupied by air, corresponding to the part which had elicited the clear sound on percussion.

There were likewise about four pounds of sero-purulent fluid, containing many portions of coagulated lymph in the left side of the chest. The pleura costalis was coated over with a regular soft, slightly adherent, layer of lymph.

The left lung, was compressed to a small bulk, and lay close to the mediastinum and spine, but, except at the upper and

back part, it did not adhere very firmly. The pleura pulmonalis was very slightly coated with lymph.

At the apex of the lung there was an irregular opening, capable of admitting the point of the finger. This orifice was found to communicate with a large irregular tubercular cavity, which communicated with the bronchial tubes.

The lung contained tubercular matter, in different stages, and was generally in the usual state of carnification which compressed pulmonary tissue is found to assume.

The heart and its appendages lay much to the right of their natural situation. The valves of the left side of the heart were lightly diseased.

The right lung was somewhat emphysematous, and contained a few groups of tubercles in different stages, but there were no excavations in this lung.

Remarks.—It is probable that in this case the pneumo-thorax took place on August 7th, but it was not proved until percussion and auscultation had been made use of on the 21st. The metallic resonance heard after coughing and speaking proved the presence of air in the chest. The metallic tinkling, occurring without any effort, was probably caused by the bursting of a considerable air-bell, so that this, as well as the succussion, proved the existence of air and liquid in the chest.

The amphorique respiration indicated the existence of a communication with the bronchial tubes.

The respiration was rather puerile in the right lung, and it was found only to contain a few tubercles.

The site of the heart accorded with the place where its action had been heard during life.

In this case the metallic resonance was produced equally by percussion on the chest during life as after death; proving distinctly, that this phenomenon is dependent upon the resonance which takes place in any considerable cavity containing air."*

* Spittal on Auscultation, p. 235-9.

X.

LA CHARITE.

CASES OF ILEUS. M. CORBIN.

ALTHOUGH ileus is most frequently dependent on a mechanical cause, it sometimes takes place without any appreciable change of structure in the intestinal tube. The difficulty is to distinguish between the one kind and the other; since we cannot but suppose that the treatment should vary according to the cause of the disease. On this account we deem every fact that can be ascertained relative to ileus, as adding to the sum total of useful knowledge.

Case 1. Francis Jallat, aged 25 years, entered La Charité on the 15th December, 1828, under M. Lerminier. He had coughed for some time, and complained of nocturnal perspirations, diarrhœa, and progressive emaciation. Percussion and auscultation detected no disease in the chest. The abdomen was neither tender nor tense. Such continued his condition on the 1st of January, 1829, when the reporter examined him, and for some days afterwards. On the 10th of January the abdomen became tender, tense, and swelled, with violent colicky pains, vomitting, small quick pulse, shrunk features, &c. He had had no motion for 36 hours. Fomentations and lavements produced several copious evacuations, with relief of all the symptoms, and a restoration to his ordinary condition. In the night of the 21st January, he was seized with a similar attack, and a dozen of leeches were applied to the anus, while emollient lavements were thrown up, without inducing stools. Oil, syrup, and laudanum were then administered internally, with the effect of evacuating the bowels. An interval of six weeks took place before a third attack. On the 6th of March, he had colic, vomiting, distended abdomen; and again the oily opiates dispersed the symptoms. On the 18th of the above month another invasion of the malady; but the remedies no longer afforded relief, and he sunk on the 25th of

March, under porraceous vomiting, dreadful pains in the abdomen, and unconquerable constipation.

Dissection. There was a triple constriction (rétrécissement) at the lower portion of the ileum—purulent effusion into the peritoneal cavity—adhesion of several portions of the intestines, the surface of which was much injected with blood, and of a dark colour. These adhesions, of which a minute but rather confused description is given, entangled two or three folds of small intestine, and bound them down so as to produce complete internal herniæ. On opening the small intestines, there was found, near the termination of the ileum, a valvular and mechanical obstruction, the description of which is also rather obscure. Above this obstruction, there was considerable dilatation of the gut—nearly equal to the size of the stomach. In this part the parietes of the intestine were greatly thickened. These wounds, at some distance from each other, two other contractions and obstructions of the gut, but not so complete as the first.

Case 2. Catharine Lominet, 16 years of age, of feeble constitution, entered the hospital on the 2d of September, 1829, under M. Chomel. She had been ill about six months, with colicky pains, diarrhœa, flatulence, heart-burn, nausea, and even occasional vomitings, especially during the few days preceding her entrance into the hospital. On examining the abdomen a good deal of gurgling noise and borborygmi were heard. In the hollow of the right ilium a tumor was felt, the size of an egg, which M. Chomel considered as an enlarged ovarium. There was no hernia on either side. Lavements and some inert remedies were prescribed. For some days the belly was distended, and few or no stools were passed. On the 7th September, the colicky pains were more than usually violent, and some porraceous matters were thrown up by vomiting, of a suspicious smell, but not decidedly stercoraceous. Constipation still continued obstinate. There was evidently some strangulation of intestine in existence. The cause or seat was naturally referred to the right iliac region. Various means were used, especially lavements, ptisans, and ice to the abdomen; but no leeches were applied. Scammony, in considerable doses, was next administered, and some trifling evacuations were procured from the bowels. By these she was partially relieved. Towards the 18th of September a diarrhœa came on, and the doses of scammony were diminished or suspended. The tumor in the iliac fossa remained, and she was discharged from the hospital, in a poor state of health, on the 8th of March, 1830. She had still some diarrhœa, and could not do without the use of occasional purgatives. She was seen six months after her discharge. The tumor remained, the bowels were irregular, and required cathartics.

Case 3. Madame Chassereau, aged 45 years, entered LA CHARITE, on the 7th November, 1829, under M. Chomel. For three years past she had been subject to constipation of the bowels, sometimes going a week without any evacuation. She occasionally experienced in the region of the cæcum, spreading thence through the abdomen in the shape of colic, with disposition to vomit, and much malaise, and restlessness. For five days before she entered the hospital, she had experienced violent pains in the abdomen, especially in the region of the cæcum, with intervals of ease, but with frequent inclination to vomit. There was neither tension nor tumescence of the belly; but pressure over the site of the caput coli could not be borne. The tongue was moist and white—the pulse rather quick—the skin hot and dry. Twenty leeches to the seat of pain, followed by an emollient cataplasm, and lavements. Next day she had two stools, and was much relieved. For three days the patient continued getting better; when, on the 12th November, there was a relapse, and on the 13th, the patient was considered to be in a very dangerous state. She had vomited a large bason full of unequivocally stercoraceous matters mixed with bile and other ingredients. She had hiccup, small

pulse, and her voice was almost extinct. Her countenance was hippocratic. Seltzer water—lavements—fomentations. The sickness continued, and five basonfuls of matter were ejected, similar to those above-mentioned. The abdomen was covered with ice—cold injections were thrown up—and saline aperients were prescribed. The abdomen continued tense and painful. Forty-eight grains of scammony in pills were given. This medicine was followed by several evacuations from the bowels, and considerable relief. She was soon convalescent, and left the hospital in a few days cured.—ARCHIVES.

We have seen several cases where stercoraceous vomiting and other bad symptoms were present, and yet where recovery took place. On the other hand, we have seen patients die where large quantities of water could be injected into the bowels without difficulty, and where it was quickly vomited up, shewing that there was no permanent or organic obstruction in the bowels—at least in one direction. A case of this kind lately was attended by Mr. Blood, of Mount Street, and the writer, where a fine young woman was carried off in six or seven days by ileus, and where no previous disease had existed. Six or seven pints of warm water could be injected into the bowels, and soon afterwards it would be ejected by the mouth. There was neither tension nor swelling of the abdomen, and very little tenderness. The fever was trifling, and the tongue moist and clean almost till the last. No motion could be procured by the anus; but stercoraceous matters were ejected by the mouth. Unfortunately we could not obtain permission to examine the body.

XI.

ST. THOMAS'S HOSPITAL.

DR. ELLIOTSON ON DROPSY.

IN a clinical lecture delivered by Dr. E. on the 22d of November last, we find the following observations, as published in our cotemporary, the Medical Gazette.

"The only case of interest was one of severe general dropsy, which was cured; and certainly it was a case of very considerable interest. It occurred in a girl named Maria Sudgwick, æt. 14, and admitted on the 14th October. She was delicate, had light hair, a fair and very fine skin, and ruddy complexion. After the disease was removed, the redness in the cheeks remained, so that it was her natural colour. It appeared that she had been the subject of ague at different times for the last three years; that about three months before her admission her belly had become swelled, and not long afterwards her legs; there had been also cough for about a month, but she had no pain in any part of the chest. She was swollen when I saw her from head to foot, but the abdomen was particularly swelled. The right eye was quite closed on account of the swelling of the face, and the left nearly so. The whole of the abdomen was tender on pressure, and the respiration was quick when she lay on her back; but that in all probability arose from the tenderness of the abdomen. She had, besides this, diarrhœa—diarrhœa attended by griping. Between the great distention of the abdomen by fluid, and its tenderness, it was impossible for me to ascertain whether there was any enlargement or induration of the liver or of the spleen; nor could I ascertain whether indeed any particular organs were inflamed.

The case appeared a very bad one, for there was besides intense general dropsy, anasarca, and ascites, and extreme tenderness of the whole abdomen, a great feebleness of the pulse—it was quick, but exceedingly feeble. It was very possible too that she might have great organic disease, as she had suffered from ague.

The indication of treatment, however, was of course to subdue the inflammatory state of the peritoneum in the first instance. I dreaded the application even of leeches, from the great smallness and feebleness of the pulse; I ventured to put on twelve, and after their removal I covered the part with a constant bran poultice. Mere small-

ness of the pulse would have been no counter-indication to free bleeding, had it been also solid; but it was extremely soft and feeble. The leeches relieved the tenderness of the abdomen considerably; the pulse, however, the next day was so much the weaker, and I therefore could not think of applying leeches a second time; yet she felt better. I ordered her, at the same time with the leeches, three grains of hydrarg. c. creta, and the sixth of a grain of opium every four hours, making 18 grains of hydrarg. c. creta and one grain of opium in every 24 hours It was necessary to give her this form of mercury on account of the diarrhœa, for any other would have irritated the intestines, and increased the purging: and it was necessary even to guard it with opium, which, independently too of the mercury, would have been proper, on account of the diarrhœa. I gave her this mercury on account of the inflammatory state of the peritoneum—on account of the dropsy being evidently of an inflammatory nature. I gave her no diuretics. The treatment evidently was to consist in the removal of the inflammatory state of the peritoneum, and checking the diarrhœa; for had the diarrhœa continued, she most probably would have suffered from it considerably, and perhaps have sunk. Yet it would have been wrong to have stopped it suddenly, for the cessation of secretion of the inner membrane of the intestines, might have increased the secretion by the peritoneal coat. I have known ascites produced by a sudden cessation of diarrhœa. The diarrhœa was partially checked, and the tenderness and tension of the abdomen diminished on the very next day. The motions that had occurred were serous, thin, copious, and very offensive. She vomited two or three times the second day after breakfast, and the pulse was scarcely perceptible; yet she did not feel herself weaker. On the 16th (the third day) she felt much better; there was no pain or pressure on any part of the abdomen, still less tension and tumefaction; the vomiting had not returned; the bowels had only been evacuated twice in the last 24 hours; the pulse had become more distinct; the motions, however, which had occurred were copious and watery, but were now yellowish; the quantity of urine was increased, and she slept very well. The treatment was not altered during the whole time that I had her under my care. The leeches of course were not applied again, but the poultice, the hydrarg. c. creta, and likewise the opium, were continued in exactly the same doses for three weeks. Without doing any thing more than this, she gradually became perfectly well; the abdomen subsided to its proper size, the tenderness never returned, the pulse became gradually slower and stronger, the anasarca disappeared from every part of the body, she very soon left her bed, and appeared in perfect health. I was then able to examine the abdomen, and I found no enlargement of any organ—no enlargement nor induration could be discovered in any organ whatever. The case was one very striking, and doubtless many who saw her thought she would die, and I had very great apprehensions myself; but under that simple treatment the result was as I have mentioned. She was presented on the 18th November. Till the 19th of October I allowed her only milk, gruel, arrow-root, and weak broth; but from that time she had a mutton chop daily, which she continued to take till she went out.

Now, however simple this treatment was, I am convinced that any other would have destroyed. Had I given her common stimulants or tonics, or full diet; or had I given her simulating diuretics, I should have most probably induced excessive irritation of the mucous membrane of the stomach and intestines—I should have suppressed the urine altogether, have increased the peritonitis, and destroyed her. I have no doubt that had she taken squills and spirit of nitric æther, and been allowed wine, she would have presently sunk. The case was one of inflammatory dropsy, the inflammation being chiefly seated in the peritoneum, and attended with great debility. Had there been no such debility, I should not have been contented with leeches, but have bled her well from the arm; and if I had applied leeches, I should have done so

very freely. I should also not have given her even weak broth, but confined her to slops,—to barley water and tea.

You are of course well aware that many cases of dropsy are exactly of this description. Dropsies, in my lectures on the practice of medicine, I endeavoured to generalize with many other affections: with fluxes, for example—discharges from the mucous membrane, with hæmorrhages of all kinds, whether from mucous membranes or not, and with various organic diseases. I stated that these occurrences might be inflammatory, or they might be free from an inflammatory state; that they are all to be diminished very much, and many of them cured simply by the treatment of inflammation, or that mode of treatment may be exceedingly improper. This is most strikingly exemplified in the discharges from the various mucous membranes, very many of which may be cured by simple bleeding, general or local, and starving, while others require stimuli to the part itself, or general stimuli and tonics. Dropsy sometimes arises, therefore, from an inflammatory state, but it is to be remembered that it sometimes arises from an opposite condition of the system. When persons are bled to excess they become dropsical, not in that instance from inflammation, but from debility. When persons are starved, their legs are observed to swell; they have hollowness of the eyes, extreme contraction of all the features, but enlarged ankles. Frequently, too, dropsy arises from an obstruction to the return of the lymph, or if the blood in the veins is impeded; and in the latter case, from the great distention that is produced, the blood-vessels ease themselves by pouring forth fluid into the serous or cellular membranes. Hæmorrhage will sometimes arise from the same cause; it is not uncommon in diseases of the heart, in which the blood is obstructed, for hæmorrhage to occur from the alimentary canal—hæmorrhage which speedily proves fatal. Sometimes dropsy arises without our being well able to explain its origin. When there is disease of the kidney, it is common for dropsy to occur; one can hardly, however, see why it should be so, unless it arise from the quantity of urine being diminished, and the secretions of the cellular and serous membranes making up for the deficiency. Yet frequently there is here no deficiency of urine, we hardly see why, in disease of some other viscera, there should be dropsy unless from the cachectic state induced in the whole system. It is very common in disease of the womb for a female to become anasarcous, even when there has been no great flooding; and it is likewise common in diseases of the spleen and the liver for the same thing to occur. You might suppose, *à priori*, that there is an obstruction to the blood in these instances, but the supposition is often unfounded. Obstruction in the liver and spleen ought rather to induce diarrhœa, or hæmorrhage from the mucous membrane of the alimentary canal. In the case of disease in the kidney, at least, obstruction will not explain it. We cannot explain why the whole body falls into a state of dropsy unless from the whole system becoming cachectic through the renal disease, or the disease of the kidney being a part only of a generally depraved state of the habit.

If the kidney be organically affected, or have great congestion of blood, or an inflammatory state, I believe the urine is generally albuminous; but I do not think that the circumstance of the urine being albuminous is, on the other hand, a proof that the kidney is in this state; at least in a state of organic disease. Because I have seen so many persons cured of dropsy, and restored to perfect health, who had albuminous urine; and if the kidney had been originally diseased, we can hardly suppose that that would have been the case; nor could congestion, and inflammation of the kidney, be supposed, because there were no signs of such affections. I have continually seen albuminous urine in cases of dropsy without any reason, first or last, to suspect disease of the kidney, and I have seen the dropsy completely cured. I think, therefore, that although it is possible that in disease of the kidney, and in congestion of that organ, the urine may generally be albuminous, the

converse cannot be said—that if the urine be albuminous we cannot necessarily conclude that the kidney is in these diseased conditions. When the disease, however, is of the nature that it was in this case—inflammatory, there are sure to be general marks of inflammation, or marks of inflammation of a particular part. I should not have supposed here that there had been a general inflammatory state of the system, for the pulse was exceedingly weak, but there was decidedly inflammation in one part, that is, of the peritoneum.

When dropsy is of an inflammatory nature you will generally see fulness about the head, or an inflammatory state of the chest, or an inflammatory state of the abdomen, and frequently we have all three parts in an inflammatory state. You frequently see the head, from its fulness, become oppressed; the patient complains of drowsiness, or a tightness of the forehead, as though it were bound with hoops, giddiness, or headach; or if you desire him to make a deep inspiration, you find soreness of the chest, and on listening at the parietes you discover a rattle; or if you examine the abdomen you find tenderness somewhere. These symptoms are sometimes inconsiderable; but you will generally perceive inflammatory affection either of the head, chest, or abdomen; perhaps the patient will not mention them spontaneously, and therefore it is necessary that you should inquire after them."

II. INTERMITTENT HEMIPLEGIA.

Dr. Elliotson has put on record, in one of of his clinical lectures, a case of this kind, which is the first he has ever witnessed. Our readers are aware that we have recorded several cases of this description on our pages. We insert the present case for several reasons.

"There was a case of disease of the nervous system presented of a curious character, the first of the kind I ever met with, intermittent palsy. I have read of it in authors, and you will find it mentioned by Cullen as *paralysis intermittens*. Now among all the patients I have ever seen, and these amount to between thirty and forty thousand, including those in various public establishments and private practice, I had never met with an instance of this description. It was a case of intermittent hemiplegia. The man was admitted into Jacob's Ward some time ago, and I mentioned his admission at the time. I gave him no medicine, because I was desirous of seeing whether his account was true or not. I seldom give medicine in aguish or intermittent complaints till some one in the hospital has witnessed the occurrence of the paroxysms. He staid here three weeks without having a paroxysm. He was, however, a very respectable man, and I did not doubt his account. He then went out of the hospital, enjoined by me to return if his disease re-appeared. One day when I came to the hospital, some time afterwards, I found him in the courts, and he said he had been seized with a paroxysm that morning, and he actually was then in a state of hemiplegia of the left side. I saw it myself. I made him walk, and he dragged his leg in a semi-circular way, as patients usually do when they are labouring under hemiplegia, and he could not raise his left arm. It began at ten o'clock, and this was the usual course of the disease. He had told me originally that the paroxysms came on at ten o'clock in the morning, not every day, but every third or fourth day, and, with a single exception, never after a longer period than that; but on one occasion there was an interval of sixteen days. He was 48 years of age, and had been subject to this affection for two years and a half; and the paroxysm would last from three to four hours. But although it only lasted that time, he was not perfectly clear from it the whole of the day. He never knew the paroxysms begin later than 11 o'clock, or earlier than 10; from 10 to 11 was the regular period, till a week before he had been admitted, when one attack came on at half-past 10 in the evening—the usual hour, but in the evening instead of the morning. The affection was not more frequent then than when

it first began. The man looked sickly, as if he had had ague, but still more as if he had suffered from a hot climate, and it appeared that he had been in the East and West Indies, and that he had had fever both at Bombay and Batavia. He had suffered from dysentery, and when he was in the hospital he had diarrhœa. I do not doubt that this was the effect of malaria—that his hemiplegia was a form of ague. I will not quarrel about words, you might say it was not ague, because unattended by shivering, fever, or sweating; but I have no doubt it was as much the effect of malaria as ague is: it was merely a variety of the same affection of the system. Supposing this to be the case, and having witnessed a paroxysm myself, I now gave him the sulphate of quinine, and, as the disease was of long standing, I began with a good quantity,—five grains every six hours; this medicine very soon put a stop to the complaint, but not till I had increasrd the dose to ten grains every six hours, so that he took forty grains in the twenty-four hours. This is the dose that is often required in quartan ague, and the present was a worse form of the disease than quartan, because it occurred on the third or fourth day, and the longer the interval between the attacks, the greater is the difficulty of curing the affection, which may be considered as so much the more of a chronic character. It is not a matter of wonder that that large quantity was required. He continued in the hospital from his first admission on the 13th of October till the 23d of December,—rather more than three months, without any other attack whatever, and his health became greatly improved. It is wrong to suppose that malaria does nothing more than produce these particular forms of intermittent disease; it poisons the whole body, and many persons are destroyed by it who never had ague at all, so deadly is the poison. His health, however, regularly improved under the quinine; he became strong, his countenance was better, and altogether he found that he had received very great benefit from it. However, on the 28th of the same month, five days after his presentation, he came to me, saying that he had had a slight attack, a very slight one, that morning, but still it was an attack, and it occurred rather later than usual, some little time after 11 o'clock. When I saw him, at about half-past one o'clock, it was then nearly gone off. I increased the quantity of sulphate of quinine to fifteen grains every six hours, and if that be not sufficient I shall give him more, as he is to come to me from time to time. I had a person in the hospital who was not cured of ague with less than a scruple every six hours, and therefore I shall not be surprised if that quantity be required in the case of this man; but I have no doubt that eventually he will be perfectly cured, though he may need very large doses.

This is a very interesting case, proving that paralysis is not *necessarily* an *organic* affection; that hemiplegia does not necessarily arise from effusion, or from compression of any kind, at least of an organic nature. If any compression do occur in this man, it can only be during the fit, for at other times he is perfectly well; it is entirely, I presume, an affair of *function*, induced by a particular poison. I have at this moment in private practice a very curious case, in which disease has arisen from malaria; it has occurred in a young gentleman about eleven years of age, who lives by the side of the Thames. He had diarrhœa at school, which was allowed to run on; he was, however, taken home, and treated very properly by the gentleman who attended the family, by leeches to the abdomen, and I believe a blister, and all went on very well. He had tenderness just on one side of the umbilicus; he was, however, seized all at once, at a certain hour of the evening, with violent irritation, severe itching, tingling, and redness at the leech-bites, some feverishness, just at the very part where all the leeches had been applied, and every leech-bite became red and swollen. His sufferings were extreme, but after lasting for a certain time, all these symptoms went away. At the same hour the following evening the same thing occurred, the leech-bites became swelled and hot, and he fell into a state of general excitement, from as it would appear, the itchlng and tingling. The medical gentleman immediately saw him, and thought the attack was of an

aguish character, and, as the family lived in a low spot by the side of the Thames, he gave this lad twenty grains of sulphate of quinine, in divided doses, before the time of the next expected paroxysm. The attack came on the next evening, but at a later period than usual, showing that the remedy had produced an impression. It is common for the remedy not to stop the disease at once, but to cause the fits to be postponed. I, however, was sent for, and I told the family that I was quite satisfied that the youth was going on right; that the quinine was the only remedy, and that it must be persevered in at the same doses. The fits were very distressing, indeed to the family alarming, and we both agreed that it was better to go on with twenty grains in the twenty-four hours. The next day the paroxysms appeared later and more slightly, and then came on once in two or three days, and still more slightly; he presently became perfectly well. At the end of a month he went out of doors, and was exposed to cold, and from his extreme anxiety to regain the time he had lost from school, for he was a fine boy, a paroxysm came on again, but rather mildly; the medicine was again had recourse to, and the immediate effect was a postponement and alleviation of the next paroxysm, and I have no doubt that if he continue to take the remedy for some weeks, he will not have a relapse. These remedies will not cure the disease unless you give them for some time after the disease has appeared to cease. Sometimes it is necessary to give them for many weeks; sometimes it is necessary to do more than this—to remove the patient from the spot. Just as in syphilis, if a person get cured, and return to the same quarters, the mercury he has taken will, of course, not prevent him from again catching the disease; so a person may be cured of ague, but if he continue to live in the same unhealthy quarters, of course the poison may operate afresh upon him; and as in syphilis mercury must be taken for some time after the symptoms have all disappeared, so must quinine *after* ague."

We have seen many cases where paralysis was evidently not the effect of organic disease, but of malaria. One, which we are not at liberty to mention by name, but which we lately saw with Dr. Paris, (who will confirm the truth of this statement,) is still more remarkable than the case recorded by Dr. Elliotson. A young gentleman, the son of one of the most PUBLIC CHARACTERS in England, travelled, more enthusiastically than wisely, through Italy during the Summer of 1830. The consequence was, a malaria fever, after which he lost the power of *all* the voluntary muscles of the body, from head to foot! In this deplorable condition he was conveyed from Venice to London, *like a corpse in perfect health.* All the functions went on regularly—intellectual and organic—but all animal power of motion and locomotion was lost. This general paralysis continued for some weeks after his arrival here; and Dr. Paris very judiciously abstained from violent remedies, such as strychnine, &c. trusting to the recuperative powers of Nature. Motion gradually returned—first in the upper, and afterwards in the lower extremities—and we believe he is now walking about, and enjoying good health. Such accidents, though seldom on so remarkable a scale, are every year happening in Italy and other malarious countries, though they are very imperfectly known to the profession of Great Britain.*

III. ABSCESS OF THE OS FEMORIS—INFLAMMATION OF THE LEG—DEATH.

John Gilchrist, aged 45, was brought to St. Thomas's Hospital at 2, P. M. Novem-

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* Vide Dr. Johnson on "Change of Air," 1831.

ber 23d, 1830, with dislocation of the head of the humerus into the axilla, occasioned only a few minutes before, in falling off the outside of a stage coach. The symptoms of this injury were exceedingly well exhibited, and, from the short period that had elapsed since its occurrence, no difficulty was experienced in replacing the bone. This was done by making extension at an angle from the trunk; and bending the arm over the knee of the operator, on which it was placed, the head of the bone almost instantly slipped into the glenoid cavity. The patient also fell to the ground on the left thigh, in which chronic disease of the bone with sinuses and discharge, and anchylosis of the knee-joint, consequent on the diseased bone, existed. Some contusion was produced at the lower part of the thigh, and he suffered great pain from this part. A roller was applied around the arm and trunk to secure the former to the side, and when he was placed in bed, his side was supported on a pillow, and kept wet with an evaporating lotion.

24th. Has slept but little on account of pain in his thigh. The shoulder has been quite easy. 27th. No sleep has been obtained, in consequence of frequent and severe twitchings of the thigh, which has continued by day as well as night: there is no appearance in the limb to account for this. Shoulder perfectly easy. Dec. 1st Severe pain has been felt in the thigh during the last three days, but no inflammation of the surface or deeper parts can be detected. 3d. Leeches have been applied with great relief of pain.

13th. An atonic kind of erysipelas has attacked the leg, and gangrene is threatened on the foot and ankle. Great swelling has taken place from the knee to the tarsus, arising from effusion of fluid into the cellular tissue; the integuments are of a faint red hue, and the cuticle is desquamating in different parts, though vesicles have not formed. The surface is tense and shining, but less so since an incision of two inches in length has been made on the outer side of the tibia in the middle of the leg, from which serum is now flowing abundantly—pulse is very feeble, 100—skin cold and clammy—countenance pale and sunken—hiccup during the last 24 hours, frequent but not powerful—dryness of the tongue and mouth with thirst. A little wine was ordered for him, and as it was suspected, from the tense state of the integuments, that matter was forming beneath the cellular tissue, three smaller incisions were made about the middle of the leg, on different sides. The skin was relieved of tension thereby, and some serous fluid was discharged, but no pus.

15th. The cuticle is desquamating from the whole leg, but the tension and redness are much abated. Patient continues equally low—hiccup very frequent. The edges of the incisions seem disposed to slough.

20th. Since our last report the patient's strength has progressively declined—pulse is now 110, excessively feeble—the incisions are surrounded by sloughs to a considerable extent, and a large grangrenous patch has formed upon the instep. There is considerable discharge of pus from the incisions, and the leg is as much enlarged, with as great redness of the integuments as before; he however takes freely of nourishment and wine; poultices of linseed meal are applied with solution of chloride of lime in direct contact with the sloughing parts.

26th. His constitution appears to have held out surprisingly, he being in the same feeble condition as at the time of the last report; the sloughs appear to be spreading still further around the incisions, which afford a free discharge.

30th. He is somewhat improved. His pulse 100, not so feeble as it was lately; his bowels are regular, and he has some relish for food, which he takes in larger quantities, and of the most nourishing kind. The leg is likewise a little better in its condition; it is less swollen and red; there is a plentiful discharge from the incision, the sloughs from which have not yet separated, but their limits are defined.

Jan. 2d, 1831. Patient is in much the same condition, but his pulse has acquired more power; he rests well, and makes no complaint of debility or pain.

4th. The sloughs have entirely separated from the wounds, and a clean and smooth granulating surface is exposed in the different parts of the leg, such as would be expected in a state of the system where deficient power existed like the present; on the dorsum of the foot the extensor tendons are exposed, and there exists an ulcerated surface larger than the palm of the hand, left from the separation of the grangrenous patch noticed on the 20th ultimo. The tibialis anticus muscle is also laid bare about its middle, the general swelling is greatly reduced, as well as the discolouration. A profuse discharge of pus yet exists, which in some situations burrows beneath the skin in excavations formed by the sloughing. There is extreme tenderness upon pressure near these wounds, when made to evacuate the matter. Pulse 100, not feeble, quite regular. Tongue clean and moist. Takes nourishment liberally, and a manifest improvement is observable in his looks.

9th. A very profuse dischage is kept up, and the granulating surface of the wound is still smooth and polished, shewing very little disposition to heal. Pulse 110, more feeble; the appetite not so good, and emaciation has become perceptible.

14th. The discharge of matter has very much increased, and it now burrows downwards from each sore, and there would collect, if it were not carefully expressed every time the poultices are removed.

18th. No diminution in the quantity of pus, which has become excessively fetid.

26th. A fresh opening has been made in the thigh near the groin, where matter had collected, and whence an immense quantity of pus is now discharged. The discharge from the cavities in the leg, which has lately shrunk a good deal, is no less profuse. His appetite has failed him, and he is supported only by the wine and brandy he takes in gruel, arrow-root, &c. The pulse has become very feeble, 100; the tongue is clean; he does not complain of pain, but he has night-sweats, and becomes weaker daily, from the profuse discharge of matter.

30th. Has been progressively sinking, and died to-day about 5 o'clock, p. m.

Post-mortem Examination.

The whole limb was pale, shrunk, soft and œdematous—the knee-joint was firmly anchylosed, and there was now detected, for the first time, a complete separation of the os femoris into two portions. This was the consequence of an abscess which occupied in the bone at the junction of its middle and lower thirds. The sack of the abscess was well defined, and seemed to be formed by the periosteum. At each extremity of the bone a portion of its end had become necrosed, and was undergoing at this time the process of exfoliation. The granulations which had arisen from the separated ends being interposed between the dead and living parts, they were in considerable quantity. Some pus, with fragments of dead bone, was contained in the cavity of the abscess. The whole of the bone was much enlarged in size, evidently shewing that the disease had existed a great length of time. The anchylosis, however, seemed to have been more recent, as the connexion was only of the ligamentary kind. Numerous sinuses were found throughout the limb, which communicated with the external sores—the muscles had become thin and pale from their long inaction, and the whole of the cellular membrane was thickened from effusion of lymph and serum. No other part of the body was allowed to be examined.

IV. DISEASE OF THE SPINE.

William Danyer, ætat. 29, a miller, was admitted into St. Thomas's Hospital, July 8th, 1830. He stated that he had taken cold four weeks ago, after which he had been attacked with pain of the back between the shoulders, and also sensation of stiffness and weakness in the knees and ancles. He says that the pain of his back sometimes shifts into his sides; and also describes his knees and ancles as being much easier when warm in bed; in other respects

his health is pretty good, he eats well, sleeps tolerably, pulse 80 and weak. Having no paralysis or deficient sensibility at this time, and referring his ailments so entirely to his joints, coming on after cold, his case was considered to be simple rheumatism, he was therefore ordered the warm-bath every evening. Tinct. guaiac. ammon. 3iss. 6tis horis, and sulph. quin. gr. ij. 6tis horis. 17th. No amendment; has been taking the medicines regularly as above prescribed, together with the liniment; sinapisms to the knees. He is ordered to increase the dose of tinct. guaiac. amm. to 3ij. and the sulph quinin. to gr. iv. 6tis horis.

Aug. 4th. No alteration taking place under this treatment he was put upon the carb. of iron, which he took in doses of 3ij. increased to 3iij. 6tis horis—and a moxa was applied to the loins. 18th. The stiffness of his knees and ankles has increased since last report; in other respects much the same. He was ordered vini colchic. 3ss. ter in die, which was continued for some time without improvement. Sept. 10th. He has now symptoms which leave no doubt that his ailments are to be referred to something more than rheumatism; he feels numbness in his lower extremities, which often causes him to trip whilst walking, and he has also occasional twitching of the muscles. On examination of the spine there is not any irregularity perceptible, but he complains much of the pain, referred rather higher than the loins; a plan of treatment was therefore adopted, more particularly directed to this situation: he was cupped repeatedly, and had blisters applied over the seat of pain—the only medicine which he took being aperients. Notwithstanding a very active application of these means he became much worse; the numbness increased to total insensibility; the spasms of the muscles became much more frequent and severe; he lost all muscular power of the lower extremities; his urine became retained, and he passed his fæces involuntarily; the loss of feeling involved the coverings of the lower part of the abdomen, as well as the lower limbs. He was now confined entirely to his bed, being unable to make the least voluntary use of his muscles. He continued during the following three weeks without any amendment; he was quite bed-ridden, and all the symptoms unalleviated, when, about the 11th of October, he was attacked with acute peritonitis, which speedily terminated in death.

Autopsy. On examination of the spine, a considerable quantity of curdy scrofulous matter was found deposited beneath the anterior spinal ligament of the three lowermost dorsal vertebræ. The arches and spinous processes being removed, it was found that the vertebral canal was much encroached upon by deposit of the same kind, beneath the posterior ligament. The extent of the disease in this situation was the same as in front, and occupied the same vertebræ. The quantity of matter formed was sufficient to press on the spinal cord, and thus induce the paralysis of the parts below. The bony parts of the vertebræ were perfectly sound, but the intervertebral substance was exceedingly soft between the 10th and 11th, as also between the 11th and 12th dorsal vertebræ; and it was in this situation that the deposit was in greatest quantity. The matter was not however isolated in these two situations; a probe might be passed with readiness under the ligament from the anterior to the posterior collections round the entire vertebræ and intervertebral substance: the ligament was three times its natural thickness, and cut almost like tendon. This case will no doubt be considered interesting, as demonstrating the cause of paralysis to depend upon scrofulous deposit, without diseased bone, and likewise occurring in an adult in whom no other marks of scrofula were evident.

V. PARALYSIS FROM FRACTURED VERTEBRA.

William Dunlop, a stout labouring man, about thirty years of age, was admitted into St. Thomas's Hospital March 25th, 1830, with complete paralysis of the lower half of the body. He stated that, eight weeks previously, he had fallen into the water, and

that a large piece of wood struck him on the back at the same time. When taken up, he had paralysis of the lower limbs; he was taken home, where he remained for two months, passing his urine and fæces involuntarily. At length, from remaining on his back so long, the integuments over the sacrum sloughed, and he was then brought to the hospital. When admitted he was perfectly insensible, and had lost all muscular power below the seat of injury—the *urine* and fæces passed involuntarily, nor did he ever require the introduction of a catheter, the urine seeming to flow away as fast as secreted; the lower extremities were œdematous, and a slough existed on the sacrum —he did not complain of his back, indeed he did not make any compiaint, bearing his sufferings with great fortitude—the only means adopted were, attention to the state of the wound on his back, and affording him what nourishment he was able to take, together with the occasional use of enemata. At length, from the distention of the limbs with fluid, and the pressure on the bed, the integuments covering both heels sloughed; and, after continuing in this miserable state of existence until the 10th of September, he died worn out by the discharge from his heels and back.

On examination of the body after death, the spine was found bent to a considerable angle towards the right side. On more particular examination, it was found that the arches of the 12th dorsal vertebra had been fractured, and also that a portion of the front part of the body of the first dorsal vertebra was split off, and driven downwards below the correspondent intervertebral substance —the vertebra itself was driven forwards two-thirds of an inch, and the intervertebral substance had nearly disappeared—the process of reparation had gone on to a considerable extent; the broken arch had re-united, but it was in an irregular manner, the spinous processes of the two vertebra being farther separated than natural, and a considerable angle being made behind—the portion of the body broken off had also become anchylosed in its new situation—the sheath of the spinal cord was intimately united to the injured bone; and several of the nerves, from the cauda equina, were involved in the same adhesive process—the rest of the cord was embraced by a deposit of bone in the arachnoid covering, forming a complete osseous ring—in consequence of the displacement of the vertebra, the size of the canal was much contracted and very irregular in shape—the viscera of the thorax, abdomen, and pelvis healthy.

VI. EMPYEMA.

Joseph Jacobs, aged 21, was admitted into St. Thomas's Hospital Nov. 18th, 1830. Says that he has had a cough during the last twelve months, and has become much thinner—has never spit any blood. About a fortnight ago he was attacked with pain in the chest and head, and shivering—the pain of the chest confined to the left side, and increased on inspiration. Pressure between the ribs gives him pain. Two days after this attack, he began to spit a thick white matter, which continues to the present time. On percussion, the chest sounds very dull anteriorly and posteriorly—the respiration is scarcely audible at any part of the left side. Pectoriloquy near axilla—he is unable to lie on the right side without coughing and great increase of pain—has considerable perspiration at night—his bowels relaxed—pulse 128—tongue white—is emaciated, and has a hectic flush on his cheek. It appears that he has led a very intemperate life, and lately has been exposed to cold and wet. He has a sore at the present time on his penis. He was ordered empl. cantharidis pectori—opii, gr. ij. o. n., acid. sulph. dilut. ℥lxx. 6tis horis, ℔ij. strong beef-tea, arrow-root and sago. His bowels are greatly purged; in other respects the same. R. Infusi catechu. comp. ℥jss. t. d. 27th. The medicine changed to t. opii, gr. vj. t. d. He went on varying somewhat in the intensity of his symptoms, but without any permanent improvement in his health; his strength supported by food of a nourishing kind, until his bowels became

again much purged, the colliquative sweats continued, and he gradually sunk.

On examination, it was found that the left pleural sac was completely filled with puriform matter, the pleura costalis much thickened, and large flakes of lymph were hanging from its surface; the ribs had in many places become carious where in immediate contact with the diseased pleura; the lung was closely compressed to the back of the thorax, to which it was adherent; some small cavities existed in its upper part, and numerous spots of tuberculous matter were deposited through its structure. On the right side, the lung was found adherent through its whole extent to the pleura costalis; the adhesions very close and firm—the left testicle was enlarged from scrofulous disease, which extended through the entire of the vas deferens, and involved the vesicula seminalis of the same side. This body was rendered solid, and as large as a hen's egg—two or three tumours of the same kind were formed in the prostate gland—the right vesicula and vas deferens were healthy, but their common duct was impervious where passing through the prostate.

VII. DISEASE OF THE HEART.

William Herbert, æt. 27, was admitted into St. Thomas's Hospital January 20th, 1831. He states that a little more than three months ago, he was attacked with pain of the left side of the chest, soon followed by cough, and attended with difficulty of breathing—with palpitation of the heart—has some pain in the abdomen, especially at the right hypochondrium, increased on pressure; there is tension of the epigastric region; he says that the abdomen has become swelled within the last fortnight; there is now very distinct fluctuation, and, moreover, the whole body is anasarcous—he cannot lie on either side, and requires to have his shoulders raised—the stethoscope indicates respiration natural over the superior part of the chest on both sides, anteriorly as well as posteriorly, and also at the inferior part of the left side, but inaudible on the right side, at which part the sound is very dull on percussion—the impulse of the left ventricle very strong, with a grating bruit after the ventricular contraction—urine scanty—pulse 120, sharp.

He was bled to twelve ounces, a blister applied to each side of the chest, and was ordered diuretic medicines, with v. grs. hydrargyri c. cretâ every six hours; the bleeding was repeated on the 22d, and his medicines continued. Blisters were applied successively to his back and sides, with p. jalapæ comp. ℈ij. Under this treatment he improved considerably; his bowels becoming affected, the hyd. c. cretâ was omitted, but he continued to take the diuretics. He was cupped on the 16th February, with relief to his symptoms, and became so much better that he was able to sit up. On the 17th, however, he complained of increased difficulty of breathing, and, on the following morning, fell back in a fit of syncope, in which he died.

About three pints of fluid were found effused in the right pleural sac—the heart was much enlarged in its entire extent—the right auricle and ventricle were enlarged, and the auricle more fleshy than natural—the left ventricle greatly dilated, at the same time that its parietes were of increased thickness; with the exception of a very small fleshy deposit on the mitral valve, this opening was quite healthy; but the semilunar valves of the aorta found to be much altered in their state, and that situated most posteriorly had been either torn by the blood forced through the mouth of the vessel, or, which is the most probable opinion, it had become ulcerated. One half of the valve had disappeared, with the exception of a mere shred of its investing membrane; the other valves were thickened and less mobile than natural—there were some marks of previous inflammation in the abdominal cavity.

DELTA.

VIII. TUMOURS AT FIRST INNOCENT BECOMING MALIGNANT.

No subject can be more interesting, or practically important to the surgeon than that which the above designation embraces. The three cases subjoined will supply ample

matter for consideration upon this topic, and we trust its importance will plead an excuse for their length and the details we shall enter into.

CASE 1.—*Tumour near the Angle of the Jaw.* William Logan, æt. 49, from Maidstone, admitted December 2d, 1830, under Mr. Green. He has a firm and solid tumour situated on the right side of the face and neck, covering the angle of the jaw and parotid gland, and the size of a large orange. The dimensions of it are very easily traced, the part being a remarkably distinct growth. It is nearly circular in shape, and apparently projects altogether outwards from its connexion with the surrounding parts; it is moveable to some extent, and seems to have no firm or deep attachment; some portion of it is traceable on the inner side of the angle of the bone, where the patient informs us any enlargement was first observed as far back as twelve years ago. At that distance of time a tumour little larger than a walnut existed just below the angle, and could be moved about with facility in every direction. The enlargement extends in front nearly to the commissure of the lips, or about two inches from the symphisis of the chin, here terminating by a thick and abrupt border; above, it reaches to the malar arch, at which point its strongest superficial attachment exists, adhering pretty firmly to the fascia of the masseter muscle by a process from the body of the tumour which becomes gradually thinner as it ascends; behind, it is defined by a thick edge above an inch from the angle of the maxilla, approaching between the latter point and the preceding close to the meatus auditorius externus, and thus displacing the lobe of the ear; below, it descends upon the neck in a thick mass about an inch and a half from the horizontal ramus of the maxillary bone. Its surface is somewhat rounded, the most prominent part being in the centre, and communicates a firm and lobulated sensation to the fingers. There is one small lobule, or portion, distinct from the bulk of the tumour, at its upper and anterior part. The progress of the enlargement has been very slow, and unattended with pain of any kind, or other sensation, so that from aught he feels he would be quite unaware of its existence. During the last three years he has noticed very little increase in its bulk. No local or general irritation is produced by it; his hearing on that side is unaffected; the parotid gland, or its duct, does not seem influenced by pressure from it, as the saliva passes freely into the mouth on that side through the duct of Steno. There is no impediment to mastication or deglutition; no difficulty of breathing, or cough (from the latter he has suffered at times, and attributed it to the swelling irritating the throat from its size); and regarding his general health, he has no complaint to make.

It was looked upon as a common sarcomatous tumour, to which opinion the history given would naturally lead, and not of a malignant character, but yet not safe to be allowed to remain.

Dec. 10. The tumour was to-day removed. An incision was made through the skin, commencing at its anterior prominent border on the cheek and terminating behind at a short distance beyond the lobe of the ear, being carried over the body of the tumour in a somewhat semilunar form. The superficial connexions of the cyst were slight, and admitted of being broken through by the handle of the scalpel. Near to the malar arch they were stronger, and required the use of the knife. The cyst was found attached to the parotid gland so intimately that the condensed cellular tissue of the latter was with difficulty distinguishable from it; some of the lobules of the gland were visible at its lower part, but were distinct from the tumour, which was dissected from this situation without any lesion of the parotid. Another process of the tumour passed deeply downwards close to the external carotid artery. The bulk of the tumour was now cut off from this portion, which it was necessary to take away with great care. At this time the artery could not be felt by the finger, when placed directly over it in the wound. After the removal of this part, the external carotid

was completely exposed for the space of a quarter of an inch, and its pulsations were very manifest. Two small arteries were tied during the operation, and two more before the man was removed from the theatre, but they were not so large as might have been expected from the size and long continuance of the tumour. Fearful that hæmorrhage might occur, Mr. Green deferred the dressing of the wound till the patient should become warm in bed. A dossil of lint was therefore simply laid over the incision. After the patient had been in bed about an hour the carotid artery beat so forcibly that the lint was moved by each pulsation, and the motion was visible at a distance; bleeding shortly took place, and rather a large quantity of blood was lost in a short time. With some trouble and difficulty four bleeding vessels were secured in different parts of the wound, one more deeply than the rest, near the carotid trunk. The integuments, now that the tumour was extirpated, were flaccid and loose, and consequently brought together with facility by strapping. A damp linen cloth was then laid over the part.

A section of the tumour was made, and it consisted of several small systs, closely pressing against each other, containing a thick glairy fluid of a yellow colour, intermixed with specks of dark coagulated blood, and having dense and strong fibrous partitions. The external cyst of the tumour was rather thin, and closely enveloping this internal structure. In the centre of the mass there was a whitish and hardened portion, approaching to a cartilaginous texture. The morbid growth was considered malignant, but in an incipient state.

Dec. 10th. *Vespere.* No return of bleeding—patient easy—pulse 90, of natural force—skin warm and moist.

11th. Had a few hours sleep last night—no uneasiness felt in the wound—some pain of head—pulse 100, full, but not hard—tongue rather dry, and yellow in the centre; the latter appearance was noticed before the operation—has some thirst—skin rather hot, though moist—bowels were open yesterday morning, but not since—Mr. Green directed ℥x. of blood to be taken from his arm. Cal. gr. v. hâc nocte. Mist. sennæ co. ℥ij cras mane.

Vespere. Relieved by the bleeding—head free from pain—pulse 96, less full, and smaller—skin moist—no stool.

12th. Passed a quiet night with a few hours sleep—is in no pain—pulse 96, small and compressible—tongue cleaner—bowels opened. Some swelling is observable around the dressings, more particularly downwards on the neck below the wound, but it is not productive of uneasiness.

Vespere. Quite easy—the tumefaction has rather increased upwards on the face.

13th. Feels comfortable after another easy night. Swelling under the chin much subsided, but more conspicuous on the face—pulse 88—bowels open. The straps were removed for the first time, and the edges of the wound found in close contact—there is a slight discharge of pus from one part—the swelling that has taken place feels firm and has rendered the skin, which was previously loose, in some degree tense. There is, however, no redness, or pain on pressure—straps—replaced at a slight distance apart, with simple dressing and bread poultice.

14th. Swelling quite subsided, and the edges of the incision are closely approximated—pulse 80, perfectly soft—bowels open.

15th. Expresses himself free from ailment, having passed a good night.

21st. No unfavourable symptom has presented itself. He has rested well, and taken the food allowed him. The wound has united throughout, and two ligatures only are remaining. Some enlargement is perceptible below the jaw, firm and hard, a little distance below the inferior extremity of the incision.

The ligatures had all separated by the 24th, and on the 6th January, 1831, he quitted the hospital. On the second he experienced slight pain in the neck, in the part mentioned as being enlarged, but this had ceased on the following day, and no increase of swelling had taken place.

CASE 2. *Tumour on the Arm.*

Henry Gooding, æt. 24, a bricklayer by trade, applied at St. Thomas's Hospital, December 23, 1830, on account of a large swelling situated on the upper arm, and was admitted a patient under Mr. Green. This swelling has unequivocal appearance of malignity, and it occupies principally the outer, back, and inner part of the middle third of the arm. Commencing a little below the rotundity, of the shoulder, it descends between three and four inches towards the elbow, and it is in this situation harder to the touch, more prominent, and also more circumscribed than at any other point; here also we are informed the disease originated two years ago. From the outer side of the arm the tumour takes its course in an upward direction backwards and inwards to the inferior boundary of the axilla; it is throughout this extent softer, more diffused and undefined, and the integuments are less tense. The whole enlargement imparts the sensation of a firm and ponderous tumour upon being handled. In some parts it is hard and resisting, whilst in others there is an elastic feel perceptible, similar to that of fluctuation. At the most prominent part the skin possesses a slight red tint, limited to a very small space; and posteriorly some enlarged veins are observed tortuous near the surface. The cephalic vein has likewise become of a larger size than natural in the neighbourhood of the disease. The tumour is immoveable from its attachments, which, to appearance are in the cellular and muscular substance of the arm, the bone not being implicated. This opinion, it will be seen, was verified by the dissection. Till within the last six months the patient had lived in Huntingdonshire, but during this period he has been employed in London, in Long Acre, the motions of the limb being impaired, but not to such a degree as to prevent him from working up to the present time; indeed, considering the magnitude of the tumour, he can use the arm with great freedom. Within these six months too, the disease has acquired its principal growth; and latterly its developement has been the most rapid, the pain, which he describes as sharp and darting through the whole substance, increasing in the same ratio with its bulk. There is no glandular enlargement to be felt in the axilla, but considerable heat exists upon the surface of the swelling. The general health of the patient, as his appearance would testify, has been good, and his parents were, from his account, of sound constitution. His pulse is under 80, and of natural character. The tongue moist and perfectly clean.

Dec. 28th. Emplast. ammoniaci, c. hydr. applied to the arm.

Jan. 7th, 1831. The patient says he has found the pain increase day after day since his admission. In the tumour itself there is little alteration apparent; the superficial veins on its surface are perhaps seen more conspicuous, together with a slight augmentation of redness and heat. After some demur on the part of the patient as to losing his limb, which he little expected, and was consequently taken by surprize at the proposal, amputation was this day performed at the shoulder-joint by Mr. Green. Mr. Tyrrell effectually compressed the subclavian artery above the clavicle, where it passes over the first rib, with a padded key, and the radial artery could not be felt at the wrist. The operator commenced by making a semicircular incison with a large double-edged scalpel from without inwards to the axilla, passing from about an inch and a half above the posterior fold of this cavity and a little below the prominence of the deltoid muscle upon the arm, the concavity of the incison looking upwards, to a little distance upon the parietes of the chest. He recommends this incision to be made freely, as less difficulty will be experienced in passing the knife between the head of the humerus and glenoid cavity. The deltoid was then separated from the humerus by the catlin, to form the anterior or upper flap. The head of the bone being now carried outwards by the assistant, the instrument was passed between it and the glenoid cavity of the scapula, and the capsule divided. Disarticulation thus

effected, the operation was concluded by cutting through the soft parts on the inner side of the limb obliquely downwards and inwards, and the lower flap, smaller than the upper, and consisting chiefly of integument, was made in this situation. The axillary trunk, the subscapular, and the posterior circumflex branch were tied with silk ligatures. Bleeding from two other vessels of considerable calibre was arrested by *torsion*, after the manner of M. Amussat, and with an instrument made by Laundy for this purpose. The instrument is very simple, having two blades like those of common arterial forceps, roughened at their extremities, and a slider which prevents their separation when the artery is taken hold of and twisted. About eight or ten ozs. of blood might be said to have been lost, and the man was for some little time in a state approaching to syncope, the pulse being very feeble and the surface chilly; he was, however, revived by two glasses of wine, and lowering the chair on which he was sitting so as to bring the head and trunk nearly in a horizontal line. The flaps were then approximated by strapping, which was applied first at both extremities of the wound, and lastly over the centre. A long and broad piece of the plaster was carried from below the breast over the shoulder near the acromion, and some way down the back, in order to depress the point of the shoulder; and the surfaces of the stump in contact were supported by a compress of lint placed over their line, and this confined by a strip of plaster. Our patient went through the operation with great firmness and self-possession; for a short time after he was removed to bed he was rather low, and felt cold and thirsty. Hot flannels were applied to the feet, and the body in general well covered. This state of depression soon went off without the exhibition of a stimulus.

Jan. 7th. Nine o'clock, p. m. Patient has had some little sleep, but the stump has been rather uneasy from smarting, and it has shewn a disposition to starting. He appears somewhat restless, and has continued thirsty; has nausea, and at one time retched, but did not throw any thing from the stomach. Pulse 88, rather full—skin temperate—mouth dry, but the thirst is allayed for a time by barley-water—no pain of head, or any internal organ. Has made water easily. A free sanguineous discharge from the stump, principally of venous blood. Mr. Green considered that if rest were not obtained in the night, of which he saw no probability at present, the patient would be found in the morning in a feverish state, and it was evident there was now no want of power or liability to febrile action in the system. In fact, he said, excessive re-action was very likely to succeed to the depression which ensued after the operation, in a vigorous constitution like the present. He therefore directed 30 minims of tinctura opii to be administered immediately, and if the pulse should become hard, blood to be taken from the arm.

8th. About three hours after he took the opiate sleep came on and continued for some time. He lies quiet and without pain—feels numbness in the stump, but this is not restless—pulse 88, compressible, and not fuller than natural—skin naturally warm and moist—thirst and dryness of mouth very much diminished—tongue not white or dry, indented at the margin by the teeth. Urine has passed freely, but no evacuation has taken place from the bowels; as he had no unpleasant symptom, however, arising from the want of alvine excretion, Mr. Green thought it adviseable not to disturb him by a purgative. Takes barley-water, gruel, &c.

9th. Slept for many hours last night without an opiate, and feels quite comfortable. Numbness continues in the stump, but there is no pain, or aching, from the dressings, which have retained their position. Pulse 88, as yesterday—skin cool—tongue moist and clean, still marked by pressure against the teeth. Bowels are not yet open.

10th. Passed another easy night, but was occasionally disturbed by the coughing of a patient in an opposite bed. He is in no pain—skin is rather warmer than yesterday—pulse 86, and in some degree full.

Has had no motion, but is ordered a dose of ol. ricini. Partakes of beef-tea, &c.

11th. The oil opened the bowels freely last night. Pulse when this morning felt by the dresser was at 72—at Mr. Green's visit it was 88. Patient is free from thirst, or pain—his rest was undisturbed, and the skin is cool. Dressings quite dry, and firm. Allowed bread pudding with an egg, and beef-tea.

12th. Pulse 80—tongue moist, continues indented. Dressings easy, and were not interfered with. The bowels have not acted since the night of the 10th.

13th. The straps were all removed to-day, and it was found that owing to the oozing of venous blood for some time after the operation they had become displaced below the wound, and the lower flap being thus ill supported was separated from the upper for nearly two inches. The surface was, nevertheless, quite healthy, and there was no discharge from it. He felt rather uncomfortable with these dressings, but when fresh ones were applied from below upwards, which brought the flaps much nearer in contact, he was easy—rests well—bowels not open: he has therefore taken house medicine—pulse 80. To have fish for dinner, and more generous diet.

14th. As no action of the bowels was produced by the first dose of medicine, a second was given last night, and three motions have been obtained this morning. The dressings seem to have slipped a little from the lower part of the stump—mutton-chop, and half a pint of porter.

15th. Was again dressed, and the granulations of the wound are perfectly healthy.

17th. Some coagulated blood, which had collected in the stump rather deeply after the venous oozing, was removed, and the straps of plaster placed in a more oblique direction, lint being interposed between them and the surface of the axilla below the inferior flap to support the latter.

20th. The flaps are retained in apposition, and the granulations have united over the part whence the coagulum was taken out. There is every prospect of a speedy recovery, the patient continuing without any untoward symptom. He now takes a pint of porter in the day, with mutton-chop.

28th. Patient is quite comfortable, and free from pain. Wound granulating rather luxuriantly, and is in consequence touched with argent. nitras.

Feb. 4th. One ligature has separated and the wound is contracted to a very narrow and healthy granulating surface.

11th. Has often sat up to have his bed made—is quite well in general health, and the healing of the stump has proceeded uninterruptedly.

17th. The last ligature came away to-day, and a small granulating line only remains to be cicatrized. He continues out of bed nearly the entire day, and makes complaint of but slight debility. A glass of wine is substituted for the porter, and mutton-chops are allowed daily.

Dissection of the Arm.

When the arm was dissected, the following state of parts was found. The biceps muscle was of very large size, and was extended laterally so as to occupy the entire anterior portion of the arm; its substance was very little, if at all, thinner than natura. On the outer side of this muscle, just below the deltoid insertion, the tumour presented itself of a white colour beneath the integuments, and some little distance lower down behind the brachialis anticus, which was so much protruded forwards by it that there was an interval of two inches between its outer border and the supinator radii longus, which space was filled by the prominent part of the enlargement. The brachialis fibres were expanded from side to side, and consequently thinned in proportion. The tumour passed downwards rather to the outer side of the humerus to within three inches of the external condyle, where it was smaller in bulk, and its termination distinct. Its course from the outer side of the arm, from the point first mentioned, was upwards and backwards beneath, or rather anterior

to, the triceps extensor (which was thereby put upon the stretch) then round the inner side of the limb, being close to the bone and separating the two shorter heads of the triceps near their origin. It terminated in the axilla by a rather narrow process, which extended as far upwards as the tendinous insertion of the latissimus dorsi, and therefore about an inch higher than that of the teres major, which is described as the lowermost boundary of the cavity of the axilla. Close to this portion of the tumour the catlin passed in the amputation, as it was seen without dissection on the wound of the amputated limb. There was slight displacement forwards of the brachial artery and median nerve. The whole tumour consisted of four separate lobes connected near to each other, some being of harder texture than others. The entire external surface was white and solid. No true capsule could be said to exist, the mass being enveloped in condensed cellular tissue, which being torn off, displayed the tumour itself, having a surface compared in appearance to that of the convolutions of the cerebrum. It was attached to the periosteum simply by cellular adhesions broken through with ease. Upon section its internal structure was found like that of the pancreas, and possessed very much the characters of the pancreatic sarcoma described by Mr. Abernethy, consisting of larger and smaller lobes closely connected together. In one part the texture very much resembled scirrhus, both to the eye and touch; and, in another, there was a small excavation of a suspicious character, the surrounding substance being softened, and some black coagulated blood effused around the opening. The spinal nerve was imbedded in the centre of the most prominent lobe.

Mr. Green remarked in a clinical lecture on the 14th January, of which the latter case was the subject, that it appeared to him and his colleagues nearly all the characters of fungoid disease were here presented, yet the enlargement was unlike almost every other description of tumour, being hard in some parts, and in others soft, and, to the finger, fluctuating. The disease was plainly gaining ground, and rapidly; but still it was in an early stage, and in that which alone admitted of trying any remedy. Having determined these points, the only plan of treatment, he said, we could adopt was to remove the tumour by surgical operation; still the question remained, whether other parts were implicated in the same disease. As stated in the report, there was no glandular enlargement, or disturbed function in any of the viscera, to forbid an operation. It was then to be considered whether the tumour itself should be removed alone, or the arm. If the latter, it was obvious from the high point to which the disease reached in the axilla, that the limb must have been removed from the glenoid cavity of the scapula, or ex-articulated, as it is now the fashion to speak. With regard to the extirpation of the tumour, this was not thought practicable; for its extent was so great, and it was so involved with the muscles, that these and more important parts would have been divided before it could have been taken away, and great danger must have been anticipated from such an operation. It was also impossible to tell, from external examination, how far the disease actually extended, and, with certainty, to what parts it was attached. Another reason which particularly urged him to recommend amputation of the limb was, that he has never known any case, where the disease was removed from the part, that it did not there return. A lady, not more than 30, and in perfectly good health, became the subject of a tumour situated on the inner and upper part of the thigh (at the bottom of the superior triangle of which Poupart's ligament forms the base, with the apex below) the size of an orange when first discovered. It enlarged rapidly and soon increased to double that size; and, it appearing about to become malignant, Mr. Green recommended its removal without loss of time. Sir A. Cooper was called in, and agreed in Mr. G.'s view of the case, and in the propriety of the operation at that period. This was accordingly performed without delay. The tumour was attached to the sheath of the femoral vessels, behind which, it passed outwards, and also the ori-

gin of the adductor magnus muscle. However, the entire enlargement was completely removed, and both Sir A. Cooper and himself were satisfied that, if ever a local disease were wholly extirpated, it was in the present instance. Not the slightest doubt upon this point was in the mind of either; the tumour being in a firm capsule was easily turned out. The patient shortly recovered, and left town for the Summer to visit the sea-side. On her return, after about four months, Mr. G. was again consulted, and sorry to perceive the disease had become re-established in the same part, and presented the same characters as before. In this patient, though in good health and young in years, the disease returned. Sir A. Cooper saw the case again, when the disease was rapidly advancing; amputation high up was thought of, but nothing save that at the hip-joint held out any prospect of relief. Ulceration took place, with frequent and profuse bleedings, and the patient sunk rapidly. This was so striking a case in the opinion of the lecturer, that he believed he need not recite more to shew the progress of some tumours, and their great danger when malignancy is suspected; and the circumstances of it weighed much in his mind when the case of Gooding presented itself.

Because we say the tumour was similar to pancreatic sarcoma, observed Mr. Green, you may tell me it was not fungoid disease, but this will take place in any kind of tumour, and from the rapid growth of late in the part, and other concomitant symptoms, we cannot say how soon it might have become so. Indeed, we can state that Mr. Travers expressed his firm conviction, from the section of the tumour, that it was of malignant nature. The whole mass was not cut into at the time of the clinical lecture, and Mr. Green, therefore, had not then seen the appearances mentioned towards the conclusion of our account of the dissection. In the first case related in this paper, that of Logan, we see that malignant action had been set up in a common absorbent glandular, or sarcomatous tumour; and even in an adipose tumour, Mr. Green has known fungoid action to take place. In the case of Gooding, as we believe fungoid action was commencing, it is of course doubtful whether this action will return, but Mr. Green has great hopes that the loss of the limb will save the patient, and that he will be able to enjoy many years of life free from disease. The tumour was not in the state of fungus, and his appearance is that of a man in the best health.

It has been observed that *torsion* of the arteries was effectual in restraining the hæmorrhage from two vessels in this case, and we are convinced the operation will come into general use. Mr. Green has trusted to it alone in a case of amputation of the breast lately performed, and also in the removal of a lip, and in both no bleeding followed. He stated in his lecture that Dr. Mölles, a Danish surgeon, who has lately visited this hospital, saw Amussat treat the *axillary artery* in the same way, in an amputation at the shoulder-joint, and the remedy was successful.

Upon the *after-treatment* of his patient, the lecturer remarked that the man was evidently suffering the temporary exhaustion after the operation from the shock of the same, he being more depressed than from the mere loss of blood. In point of fact, as he was operating upon a subject he might say in robust health, it was designed by him that some blood should be suffered to flow. He would not then give stimulants, which many might be tempted to do, as these were likely to bring on bleeding, and to increase the excitement afterwards. Touching the use of laudanum immediately after operations, he said he was not in the habit of ordering it, and in general saw no necessity for it; it might be injurious, increase fever, and constipate the bowels, which are the symptoms we would wish to obviate.

Our readers will no doubt feel interested to know the result of these cases, which will be of the greatest importance. We shall endeavour not to lose sight of the patients, and any further

facts that come to our knowledge worthy of publication shall be recorded.

CASE 3.—*Tumours of the Breast.*

Clarissa Chamberlayne, æt. 26, admitted into Queen's Ward under the care of Mr. Green, January 15, having three small tumours, very similar to scirrhus, in her left breast above the nipple. Two of these tumours are larger than the third, which is situated nearest to the axilla, the central one being the size of a walnut, and having been observed by her only four months. This has grown rapidly, having surpassed the next in size, which was noticed two months previously to it. The third is quite small, and the patient was unaware that it existed. At first they were unattended by pain, but this has been present during the last fortnight, of a darting and pricking kind, recurring at intervals. Tenderness is exhibited under firm pressure, but not otherwise. They are moveable with facility, and apparently connected to each other by a fibrous band running between them. The patient is a married woman, of delicate appearance, and what has been termed a leucophlegmatic habit. She has had two children, the younger of which is eighteen months old, and was weaned only four months ago, at the time the second and largest tumour was developed. Catamenia have been regular, and in proper quantity. She is free from dyspeptic symptoms, and her general health and spirits are unaffected, although she has never enjoyed strong health. Bowels are costive—the tongue clean and free from dryness—pulse rather quick. Ordered house medicine occasionally. Empl. saponis to the part.

Jan. 18th. Mr. Travers and Mr. Tyrrell have seen the patient, and do not seem to think the tumours are at present scirrhous. The former gentleman considered that they originated in simple adhesive inflammation of the lactiferous tubes, but observed that it was not safe to leave such tumours long to take their own course. He suggested the trial of iodine. Mr. Tyrrell said they possessed the precise feeling of scirrhus.

21st. The whole breast was to-day removed by Mr. Green, agreeably to the wishes of the patient, together with the tumours, by the usual operation. Some of the lactiferous tubes near to the axilla yielded a small quantity of milk on their division. Some of the bleeding vessels, which were very numerous, were twisted, but they were not of large size even for this situation, and the greater number ceased to bleed spontaneously. The edges of the wound were then approximated by dressing in the ordinary way. During the time the vessels were being twisted, and an examination of the wound was made to find out any more that might prove troublesome afterwards, the patient was rather faint and the pulse feeble.

Upon section of the two larger tumours, the structure appeared very similar in both. It was quite hard, internally of a whitish colour, and fibrous appearance, but had not the radiated surface we see in confirmed scirrhus. Nearly the whole internal section of the smaller tumour was of a pale colour; that of the larger one was peculiarly white in the centre, and light red, or mottled, towards the circumference. Externally to the central hardness, a thick yellowish fluid not confined in any proper cavity, and very minute in quantity, appeared when an incision was made into the enlargement.

22d. Has passed a tolerably quiet night, and the pain, which continued in the wound for some time after it was dressed, ceased in the afternoon. Her pulse is, however, feeble, and 148—skin rather hot, but moist—tongue whitish and furred. No motion has passed from the bowels, but urine has been voided easily. There is no uneasiness now in the wound.

23d. There has been considerable pain in the wound for the last few hours, and rather copious oozing has taken place, which has excited much unnecessary alarm in the patient's mind. She slept well, and her bowels have been opened by a powder of scammony and calomel given yesterday. The pulse is 124, and feeble—tongue has a brown and dry streak along the centre to the tip, and is white at the margins—her

thirst is less, and the skin not hotter. We removed the lint and some few of the straps, which relieved her of the uneasiness in the wound, by the exit of a reddish fluid (similar to venous fluid, but thinner), which still was oozing freely. The edges of the wound appeared remarkably healthy, and were brought in contact again by the same means.

24th. The oozing has continued rather plentifully, but the patient is free from pain in the wound, or in any other part. She has passed a comfortable night, and her bowels are open. The pulse is very frequent, but regular—her tongue has lost its brown and arid streak—menstruation has been taking place during the last two days, and this no doubt accounts for the oozing from the wound, which possesses a peculiar character, being certainly similar in appearance and consistence to the menstrual fluid. The discharge from the uterus is more scanty than usual.

25th. Has been in no pain, either from wound, or in head; the pulse is at 110, and the skin naturally cool—her bowels are open, and tongue less white—wound has united throughout, except at its innermost point, and its edges are without the least redness.

27th. Patient quite free from pain and feverishness—wound was dressed, and a slight quantity of purulent matter escaped from the inner extremity—no oozing now takes place.

28th. The catamenia have ceased to flow, and there is a healthy discharge (purulent) from the wound, in the situation beforementioned. This has united elsewhere, but the adhesions are not very firm, and require the support of strapping.

31st. No feverishness remains, and the wound continues united, affording a healthy discharge of pus at the one part only—pulse 90, soft, and natural in its bent—bowels open.

Feb. 2nd. Wound looks very healthy, there being only the one point ununited, and the patient is without complaint. Some hardness is felt passing from the incision towards the axilla.

7th. The granulations at the inner end of the incision are florid, and cicatrizing quickly—our patient is on house diet, and has rapidly regained strength and looks of health.

15th. Cicatrization is perfect, and the patient has recovered her former power—the hardness near the axilla is no longer to be felt.

17th. Presented well.

IX. PURULENT OPHTHALMIA.

This form of ophthalmia is not frequently seen in this country in the adult, unconnected with gonorrhœa. The following case, however, appears to be a well marked instance of the disease in question.

Thomas Lester, æt. 23, a brewer's servant, accustomed to live comparatively temperately for this class of persons, was admitted under Mr. Travers's care on Thursday, the 4th November, 1830, having ophthalmia of both eyes attended with a most profuse purulent discharge. He stated that on the Monday week preceding he had gone some distance into the country on a job with his waggon, and returned home late at night, when he rubbed his eye (the right) rather roughly with his fingers, in consequence of itching and uneasiness in that organ. It then began to swell immediately; he, however, thinking the swelling would subside in the night, went to bed without taking further notice of the inconvenience he felt; but when morning came, the eyelids were so much swollen that he was unable to see with that eye. He says that it was not at all painful even then, nor has pain been present from the commencement. A copious discharge of what, from the patient's description, we should consider to be pus, at once took place. Treating his case lightly, he applied nothing to the eye but warm water fomentations, and sought no medical advice. In the course of a week the disease attacked the other eye in the same severe degree, except that there was not so much swelling of the palpebræ. The man expressly declares that at no period of his life has he had gonorrhœa, of which disease no traces are to be observed about the genitals, and he can give no

other account than the above of the mode in which his eyes became affected. For our own parts, we are forced to the supposition, from what we can judge from present circumstances and what we have learned, that the inflammation of the conjunctiva arose simply from exposure to the night air, and was modified by some peculiarity in the atmosphere, or in the constitution of the patient.

At present slight pain only is felt in the left temple and brow, not very deep; both palpebræ superiores are greatly swollen, their texture thickened and somewhat indurated, the external integuments of a dusky red colour, and their inner surface is tumid and of a brick red. The lower eyelids are in a similar state, though in a less degree. From this distension, the lids are of course approximated, all voluntary power over them being lost, and the upper one prolonged upon the cheek below the inferior tarsus; and as the patient is lying on his back in bed, a stream of white pus flows from the outer angles down the cheeks. The destruction in the right eye is much greater than in the left; vision is quite lost in this, the cornea being ulcerated, and some pus apparent in the anterior chamber. The conjunctiva is loaded with livid red vessels in a state of congestion. In the left eye, sight still remains, but far from perfect; the cornea is rather dull, and the conjunctival membrane is equally congested with the opposite. Slight chemosis has taken place on both sides, the cornea appearing depressed in consequence. The face is pallid—pulse not frequent, 84, and rather weak—skin cool—tongue whitish—appetite lost—bowels have not been regular.

Mr. Travers ordered the following to be injected into the right eye: argent. nitr. gr. iij. aquæ ʒj. M. To the left temple ten leeches to be applied, and to the left eye foment. papav. ʒj. aluminis, gr. iss, on linen constantly. Emplast. lyttæ nuchae. R. Inf. cascarillæ, 3x. Acid. sulph. dil. ℥lv. Syrup. 3j. bis die. Mist. sennæ comp. p. r. n.

Nov. 6th. Has no pain the eyes, and there is not any perceptible alteration in their condition. Patient has slept well, and the bowels are opened by medicine.

7th. Some pain has been produced in the right eye since yesterday from the nitrate of silver solution, which deprived the patient of sleep last night, and has given rise to a degree of general feverishness. It is an unusual circumstance for pain to continue so long after the use of the nitrate. Pulse 80, more full—skin warm. He thinks the vision of the left eye is improved.

8th. Says he is much easier, and indeed in no pain; and the sight of the left eye has increased—drops of nitrate of silver omitted.

9th. Can to-day open the left eye. The cornea is clearer, and he can see more distinctly than at any former period since the attack. The redness and swelling of the upper lids have subsided, and are now confined to a red line at their margin.

11th. Somewhat improved since last date—discharge much less, and not so purulent; his appetite is very defective, and he does not recover strength. Quin. sulph. gr. j. Decoct. cinchon. ʒj. Acid. sulph. dil. ℥iij. Tinct. cardam. co. 3ss. Syrup. aurant. 3j. M. 6tis horis sumend. Aluminis, gr. vj. Aquæ rosæ, ʒiv., to make a lotion, to be substituted for the fomentation.

14th. Not much alteration in the state of the eyes. Pulse is stronger, 90.

18th. Amendment progressive—discharge and redness of eyelids diminished. Remedies continued.

22d. Tumefaction and redness have quite abated from the palpebræ of the left eye. The cornea has one small speck of ulceration, situated a little above the axis of the pupil; but, excepting this, it is quite clear. The pupil is slightly oblong vertically, from adhesions formed anteriorly at its upper border; these, however, appear but trifling. It is contractile, and very little, if at all, diminished from the natural size.

30th. Cornea free from any opacity, and sight is nearly perfect; there is some irregularity of the pupil at its upper part, but it contracts and dilates nearly to the natural

extent. There also exists a deposit of lymph on the anterior surface of the iris, above the pupil, connecting the iris to the cornea. The termination of the case is remarkably fortunate, and very different from what we are generally doomed to witness in this formidable disease. In the right eye there was not, at any period, the prospect of the restoration of vision.

Dec. 7th. Presented.

X. PHLEGMONOUS ERYSIPELAS.

Isabella Scrutching, æt. 12, residing at Somers Town, admitted under Mr. Green, December 7th, 1830. This girl is very dull and stout for her age, and has an unusually florid complexion, at present probably more than natural from flushing. Situated on the inner side of the left arm, from a little below the elbow-joint to the extent upwards of about four inches, the integuments are reddened for nearly the same space in the transverse direction of the limb, and are hot and tense; the part is also considerably swollen, and feels firm, indeed rather hard, and of course is painful under pressure. The inflammation commenced a fortnight ago, and the patient is unable to assign any cause for its appearance. A sharp and lancinating pain accompanies it, and the redness is diffused and of a dark hue, being uncircumscribed, and indicating that the subjacent cellular tissue is involved in the inflammation. Some of the axillary glands are enlarged and tender, and covered with a red surface. The constitution has not sympathised with this local disease as much as might be expected. The pulse is 100, not hard or full—skin quite cool—tongue rather dry and white—there is some head-ach, with nausea, but she has not vomited—bowels have been opened by medicine. Mr. Green made an incision, about two inches long, through the inflamed skin and cellular texture. It appeared to produce very considerable pain; very little blood was lost from the incision, and the bleeding was encouraged by fomentation; after this, the part was to be enveloped in a linseed poultice. The following medicines were prescribed, cal. gr. j. o. n. Magnes. sulph. ʒj. Vin. ant. tart. ℥xx. Mist. meth. ʒjss. 6tâ q. horâ.

Dec. 8th. Redness and tumefaction very perceptibly abated, and the integuments have lost their tense appearance. The patient has had a quiet night, with many hours' sleep—pulse is 100, soft, and rather small—tongue white—bowels have acted two or three times. Small portions of dead cellular membrane are loosely adhering to the edges of the incision, apparently detached from its lowest part; they are of a brownish colour, as well as the wound itself, and from the latter there is a slight discharge of pus.

9th. Inflammation subsiding—the redness occupies a less surface and is paler; there is rather a prominent and tender part on one side of the incision, as if from contained matter, but there is no softness, or fluctuating sensation. A bright rash has appeared since yesterday upon the arms, which commenced on the left around the wound, and is here now more conspicuous than in any other situation; it is continuous from the wrists to the shoulders, and is something like that of measles; the skin is of a dark red colour, and thickly interspersed with minute elevated spots, and, consequently, feels rough to the fingers. Some slight traces of it, as if quite in its commencement, are visible on the trunk, about the chest and scapulæ behind. It also exists on the thighs, but not nearly to the same extent as on the upper extremities. Her pulse is quicker than yesterday, but not sharp or hard. The efflorescence itself is hot, but the general surface is not elevated in temperature— tongue still white and dry—bowels very freely open; she experiences considerable itching and pricking pain from the eruption on the skin. The wound discharges but scantily, and looks as yesterday.

10th. Erysipelatous inflammation is gradually declining, and there is a more abundant discharge of pus, with some few shreds of cellular tissue in a dead state, from the wound. The rash on the skin has faded very considerably; the redness has nearly disappeared, together with the pimples, the re-

mains of which still afford the same degree of roughness to the surface—prurigo is much diminished—the pulse soft, 100—tongue less white.

11th. Redness of the skin no longer visible, except at the back part of the arm, opposite to the wound. The whole surface of the extremities is elsewhere of a natural colour, but still rough. There is no inflammation remaining around the wound, which has a favorable appearance, but the prominence near to it noticed on the 9th has increased, and a phlegmonous abscess would appear to be forming. She rests well—pulse is soft, 90—tongue moist and clean—bowels continue to act freely.

13th. Skin is free from discolouration and roughness. The inflammation is quite subdued in the arm, and our little patient has no complaint to make. Some induration exists in the site of the former inflammation.

15th. No hardness now remains round the incision, which is healing by granulation, nor is there any swelling; and the appearances of abscess forming no longer remain. The child sits up the whole day, and appears in her general health as if nothing ailed her.

18th. Wound is strapped, and the patient on house diet.

28th. The wound is almost healed—ceratum calaminæ applied.

Jan. 13th, 1831. Presented well.

XI. STONE IN THE FEMALE BLADDER—OPERATION.

Elizabeth Cook, æt. nine years, was admitted under Mr. Green, on January 25th, having symptoms of stone in the bladder.

Her mother states that, ever since the child was three years old she has observed some sandy deposit in her urine, mixed with what was considered to be mucus; but within the last three months only have decided symptoms of stone manifested themselves. During this time she has lost flesh rather rapidly, has suffered most acute pain, and been unable to leave her bed, her sufferings being greatly aggravated by exercise. Till the little patient attained her seventh year, she had been remarkably plump and healthy in appearance, though always but little disposed to exert herself with the same alacrity as other children of her own age, but the last two years her growth has been checked. About seven months ago four small calculi, described as being of very hard texture and resembling common pebbles, escaped from the bladder with her urine, but none have passed since. The poor child frequently screams out from pain, especially after the passage of urine, which she is generally not able to retain for any length of time, and scarcely ever in a quantity exceeding two ounces. Some of this fluid being collected in a glass measure appears very turbid, and deposits a thick sediment of mucus. Pain has existed in the loins, but not latterly; the most intense suffering is at present referred to the thighs. Her rest has been very much broken at night from obvious causes, and the countenance is anxious and worn. The appetite has not failed much; the bowels act regularly, and the motions are said to be healthy—pulse is nearly natural, and the tongue clean and moist. Of late she has taken considerable doses of opium in the solid form, as often as four or five times a day, which remedy she has borne in a manner unusual for children so young; and the parents have also been in the habit of giving her gin.

Jan. 27th. She has been in extreme pain, evinced by violent screams, but got some few hours uninterrupted sleep last night. In the evening she had pain at the lowest part of the abdomen, but no tenderness. The former exists to-day, and leeches, with fomentations, were applied. The little sufferer endeavours to obtain ease by sitting up in bed with her thighs approximated to the abdomen. On testing the urine, it is found neutral. Three grains of ext. hyoscyami were given at night.

28th. Passed a good night, but has been in the greatest tortures the whole morning. Her cries are attended by strong action of the respiratory muscles, and the mother informs us that a hernial protrusion has taken place on the left side, from the abdominal ring, and most probably of the direct kind,

but none has been observed since she has been here. About three o'clock in the afternoon, as she was in so great agony, Mr. Tyrrell was requested to see her. He refrained from putting the patient to the pain of introducing a sound, as Mr. Green would see her in the evening, and would probably then pass one into the bladder. Mr. T. directed her to be placed in a warm bath; and five minims of liquor potassæ with five of liq. opii. sedat. to be exhibited every two hours till relief of pain was obtained.

9 o'clock, p. m. Has taken three doses of the medicine, and has been easy since eight; medicine to be administered only when required by pain in the night.

29th. In consequence of the pain recurring last night, the dose had been repeated four times by twelve o'clock to-day. Mr. Green now sounded her and discovered a calculus of large size, and apparently of the mulberry species, in the bladder. The hernia was noticed during the struggles of the child, issuing from the external ring. Medicine to be omitted.

30th. Has been somewhat easier—her stools are white, but pulpy—Mr. R. Whitfield ordered a dose of ol. ricini.

31st. Was placed in the bath early this morning on account of the severity of pain, and it was speedily effectual in relieving her. Has had a stool more healthy in colour.

Feb. 1st. Mr. Green to-day removed the calculus from the bladder by an operation, which consisted in cutting through the urethra and neck of the bladder with the gorget, passed along the staff (the groove of which was directed downwards), with its sharp edge turned outwards and a little downwards. The urine escaped with great force when the bladder was cut into. The stone, which was larger than a walnut, and somewhat of the same figure, weighing ℥iv. ℈ijss., and of the oxalate of lime composition, was easily felt and laid hold of by the forceps. But these, being of small size, slipped from the surface of the calculus owing to their want of capacity to retain their hold; a larger pair being introduced, it was forthwith extracted. Not an ounce of blood flowed from the wound. The child was very irritable and struggled much during the operation, which gave rise to descent of the hernia and protrusion of the rectum. After the operation her countenance was sunken and anxious, and she was crying from pain for above an hour. She continued to suffer in a less degree throughout the afternoon, and in the evening at 10 o'clock we found she had passed urine freely through the wound, no hæmorrhage had taken place, but she had suffered much uneasiness in the pubic region. No tenderness here existed, and her breathing was tranquil. Pulse rather quick, 112; skin quite temperate.

2d. Her night has been disturbed, she having slept very little, but she has had neither pain nor tenderness of abdomen. A copious liquid stool of a natural colour has just come away, and the pulse is now little above 90, and natural in its beat; in the space of an hour, however, it returned to 112—skin cool. The urine has flowed without interruption.

Vespere. Bowels have acted twice since morning; she has had some little abdominal pain. The pulse is the same, but compressible.

3d. Owing to the recurrence of rather severe pain last night, about three o'clock, leeches were applied to the hypogastrium, and have produced most immediate relief. Her pulse is tranquil, and skin cool, and she slept for some hours after the local depletion of blood. Countenance placid, and has lost all expression of anxiety. Flow of urine unobstructed.

Vespere. Has been quite free from uneasiness, and has retained her water for an hour. Some superficial redness has existed on the nates for an hour or two, but it is not inflammatory in character—bowels open.

4th. The redness noticed last night has quite disappeared, and was produced simply by the irritation of the urine. She has slept well, and the pulse is 108, soft, and compressible—tongue is clean and moist. Her water was retained two hours together in the night. One stool. Allowed bread pudding.

5th. Has passed a good night and is in every respect well.

6th. No unfavourable symptom to be mentioned.

7th. Patient well—urine is now constantly flowing; pulse 110; it has varied from time to time, but has never been under this standard—bowels have acted regularly every day—and the evacuations are healthy. She partook of some chickens yesterday.

9th. Wound has been healing most favourably; the little patient has taken meat, and continues to rest well. Her pulse is ranging from 110 to 130.

12th. In every respect well.

15th. Retains her urine for three or four hours at a time.

22d. The little patient has not been allowed to leave her bed yet, but may be considered as perfectly recovered from the effects of the operation, having no incontinence of urine. Her pulse is frequent, but in a child this is a matter of little importance.

After having read the above case to the class, Mr. Green observed in a clinical lecture that the reasons which induced him to prefer the operation of cutting into the bladder to that of dilatation of the meatus urinarius, now generally adopted in the female, were these. In children it was very difficult to keep the body perfectly quiet, whilst the dilatation is being effected and the calculus brought through the canal. This patient was obviously excessively irritable; and a longer period would be necessary for dilating the urethra, and more distress altogether produced than from the simple incision that was made. As it afterwards appeared too, the calculus was too large to be abstracted with safety by any other mode.

XII. INTERESTING CASE OF LITHOTOMY.

John Wilkinson, æt. 19, by occupation a chair-maker, was admitted by Mr. Green, Feb. 3d, 1831, from High Wycomb, Buckinghamshire. About six years ago, we are informed, he had some symptoms of stone in the bladder, such as pain in the region of this viscus and in the penis, and the passage of blood with his urine; and from these he has not been free during this period, although they have been productive of little or no uneasiness up to the last six weeks. A greater degree of pain having latterly come on without any assignable cause, he was sounded by a surgeon in the country, and a calculus detected a fortnight since. The patient says that on Christmas night he was first attacked with severe pain, which has since recurred at short intervals and become more intense. His urine is clear, and he is devoid of pain in the loins; such did exist three or four years back. At night his rest is disturbed, he being often obliged to make water eight or ten times during the period he is in bed, but his general health is not effected, the pulse being 70, and the tongue clean. There is slight constipation of the bowels. He has been addicted to drinking rather in excess, and the face is thickly covered with black pimples, the complexion being dingy and unpleasant to the sight, and of an unusual leaden hue.

Feb. 8. Was sounded to-day by Mr. Green, and a calculus found, situated over the vesical extremity of the urethra, so that it was instantly struck by the instrument. It appeared to Mr. Green to be very rough, and probably of the mulberry kind. Patient's bowels are regulated by the house-medicine, and he makes no complaint other than what is referrible to the above obvious source. He is free from cough and every other symptom of pulmonary disorder, and his urine is quite transparent, and slightly acidulous. The face is not, however, clearer from the black spots.

11th. The operation of lithotomy was this day performed, with the instruments used by Mr. Green, viz. a knife, to make the incisions down to the staff, and a gorget, wherewith to cut in the bladder. When the calculus was grasped with the forceps, it was found to be of larger size than was anticipated, and its surface very irregular. Some attempts were made by the operator, to remove it with the instrument, but this being found impracticable, the internal wound was dilated with a bistoury, after which the calculus was withdrawn by means of a larger pair of forceps. Rather profuse hæmorrhage occurred from

the transverse artery of the perineum, which was pouring fourth blood during the whole operation and this lasted upwards of 20 minutes. The difficulty in the extraction arose from the size and nearly spherical figure of the stone; and it was also increased by the unusually rough (or aculiate) surface of the latter, which we might say was studded with pointed excrescences of nearly a sixth of an inch in length.

When the operation was concluded, the patient was a little depressed and felt thirsty; but his pulse was good, and all bleeding had ceased with the removal of the concretion. He complained of pain in the situation of the bladder for some hours, was rather restless, and wished to change his position, from the back to that on his side. At nine o'clock in the evening we learned that slight pain had frequently recurred in the hypogastrium, and that half an hour before a large quantity of coagula, with some fluid arterial blood, had escaped from the wound. He was now easier, but felt considerable depression and thirst—pulse 90, quite soft—no tenderness of abdomen—urine had flowed freely through the wound, and a small quantity from the penis, which often happens soon after the operation from the presence of coagulated blood between the urethra and external wound. Dry fomentations were applied. Feb. 12th, 10, a. m. Has slept at intervals during the night, and feels less depression—his water has escaped in abundance. There has existed some permanent pain, with tenderness, in the left iliac region for the last two hours—pulse 110, soft—skin cool—tongue rather white. Twelve leeches were applied to the part alluded to by the direction of the dresser.

Feb. 12th, 4, p. m. The pain and tenderness were relieved by the leeches, but the pulse has been progressively increasing in force and frequency; it is now at 140, irregular and hard. The respiration has been but little affected. Tenderness seems more diffused, but is less severe—skin moist and temperate. Soon after the leeches were removed, he was chilled and felt an internal coldness, which has ceased, and at present there is a sensation of heat internally; some headach has been present, with a constant craving for drink. A linseed poultice has been applied over the leechbites. Mr. Green had a vein opened in the arm, and about 18 ounces of blood being taken, the heart's action ceased. When this had returned, the pulse had lost its hardness and was less frequent. Mr. G. directed 3ij. of ung. hydr. to be rubbed into the thighs after the elapse of an hour, when the following pills were also to be commenced every four hours. R. Hydr. submur. gr. iv. Pulv. opii, gr. ¼, M. should any pain continue in the hypogastrium, 20 leeches to be re-applied, and if after six hours the pulse should remain hard, the mercurial friction to be then repeated.

11, p. m. Some pain and tenderness have remained till now in the hypogastric region; the pulse is 140, rather jerking, but regular, and admitting of compression—skin cool, but not moist—headach has ceased. The rubbing in was accomplished without any inconvenience, and a second relay of leeches was put on about nine o'clock. A glyster of gruel and castor-oil has just been administered. It was not thought necessary to repeat the friction, the dresser judging from the altered state of the pulse.

13th, 9 a. m. He has enjoyed some sleep in the night, and had but slight pain, which still continues, along with tenderness, but both are much less intense than last evening—pulse 126, irregular in force and beat, softer, and not jerking—respiration natural. A copious stool followed the exhibition of the injection, and almost instantly afterwards there was very marked relief. A light bran poultice has been kept on the belly—tongue whitish, moist—skin also moist. Yesterday evening a saline mixture, containing the liq. ammon. acetat. and the tartrite of antimony was given every four hours; but having produced sickness, it is now omitted. The countenance is of much better expression, and thirst has abated. Has taken the calomel and opium with regularity, and these are continued.

3 o'clock, p. m. Pain and tenderness under pressure have been gradually decreasing, and the man has slept occasionally. Pulse 118, regular, full, and soft—redness of the gums is produced, with the mercu-

rial fetor and taste—urine has flowed freely, and he has had another evacuation from the bowels. Mr. Green visited him at eleven o'clock, and ordered two drachms more of unguent. hyd. to be rubbed in immediately, and four grains of calomel with one of opium to be taken every six hours. Arrow-root and rice are allowed, and if thought necessary, beef-tea.

10, p. m. The countenance has very much improved since morning. The abdominal pain and tenderness continue, so that twenty more leeches have just been applied. Pulse 118, full, and soft—sickness and headach have quite left—breathing performed with natural facility—gums have become more sore, and the bowels have been open twice since three o'clock. The dresser desired half the quantity of calomel to be now administered every sixth hour.

14th, 9, a. m. Much less pain exists, and he bears tolerably firm pressure—has been quite easy throughout the night. Pulse 116, in the same condition as last mentioned—urine has passed in abundance. There is some swelling of the jaws from the mercury, which is ordered to be intermitted until Mr. Green's visit. No motion from the bowels.

10, p. m. At two o'clock Mr. Green saw him, and found the pulse at 120, full, but compressible. A motion had just passed, preceded by griping, though solid. He ordered the friction to be again employed, preferring this to giving the submuriate by the mouth in the present irritable state of bowels, and an injection of two ounces of starch and 40 minims of laudanum to be exhibited immediately. Shortly after it was thrown up a state of slight collapse came on, attended with nausea and faintness; these have however, ceased, after taking a few ounces of the effervescent mixture. The pain and tenderness of abdomen have been gradually diminishing, and the pulse is reduced to 100 and is less full. Two more stools have been passed, with griping pain, and in one of them a large lumbricus was voided. A grain of opium was given by the dresser, in soup, and beef-tea directed to be exhibited in the night should he appear to get weaker,—and, if requisite, ammon. carb. gr. vj. every fourth hour.

15th, 10, a. m. A state of depression again occurred at three o'clock this morning, with frequent purging of scanty stools, and he has enjoyed no rest. The ammonia has accordingly been taken, and at present he is revived and disposed to sleep. Complains of pain near the umbilicus from griping, but has not inflammatory pain or tenderness, and an evacuation came away about half an hour ago. Pulse 98, regular, not so full or strong—mouth very sore—tongue moist has a whitish fur over the whole dorsum—countenance is rather sunken. The urine has been voided in sufficient quantity, and principally through the urethra; wound looks healthy, and there is no surrounding redness, nor excoriation. A glyster of starch and laudanum was ordered to be again injected; and another dose of the ammonia immediately, the last having been taken at 7 o'clock. His linen and sheets have been changed, from which he has derived great comfort.

8, p. m. At Mr. Green's visit, at 2 o'clock, he found pretty firm pressure borne in every part of the abdomen without the least pain, and no unfavourable change since morning was observable. Two motions had, however, come from the bowels, and, therefore, the enema was repeated; the ammonia, &c. to be discontinued. He has slept for some hours during the day; and at present the pulse is 110, and rather more powerful, and there has been no recurrence of pain or stool since the injection.

16th, 10, a. m. During the night the bowels have been purged four or five times, and acute tormina have attended each evacuation, but there is no tenderness of belly, nor permanent pain. Owing to this state of bowels no rest has been obtained—the pulse is 110, not full, nor strong—tongue more thickly coated with a white fur, and gums more affected by the mercury. Urine has been voided in greater quantity through the natural passage, and the wound is looking well. Mist. cretæ co. ℥iss. 4tis horis. Mouth is washed with a gargle of chloride of soda.

9, p. m. Bowels continue equally relaxed—pulse 118, stronger. He has taken rice-

water and milk, which latter, he says, was accustomed to purge him when in health. Mr. Green gave orders that the following mixture should be given every four hours. R. Magn. sulph. ℥ij. Tinct. opii, ℥lv. Mist. menth. ℥jss.; and, if this do not effect some tranquillity of the bowels after the first few doses, ℥ij. of the compound infusion of catechu to be substituted; omit milk.

17th. Several motions have passed during the night, but they have been less copious, and the patient's bowels have been quieter, and not in their former uneasy state. A dose of the catechu was supplied at 5 o'clock this morning, and two or three evacuations, not accompanied by pain, have since taken place. No pain nor tenderness continues; the pulse is 100, and soft—tongue coated thickly; but, as the mouth is very sore from mercury, it probably originates from that cause. Urine has passed freely, both by wound and urethra. To have some bread pudding, and the catechu to be repeated, if required by the state of the bowels.

18th. A dose of the catechu was given last night, and the bowels have been open several times, but not since five o'clock—pulse 96, nearly natural—mouth less sore, from the use of a gargle of chloride of lime—rested well last night—urine uninterrupted—countenance almost as before the operation. To have bread pudding, &c.

19th. Has slept well, and his pulse is at 88—gums very sore, and the under surface of the tongue is ulcerated. One scanty motion was discharged at five, and none subsequently.

20th. Pulse 88, natural in strength—ulceration of tongue and mouth diminished, under the frequent use of the chloride of lime gargle—no stool has been voided since yesterday. Patient suffers nought but from the state of his mouth, but was able to eat some chicken.

22d. Feels quite strong; and, were it not for his mouth, he says he would not have cause for complaining. A little meat allowed; bowels not purged.

24th. A very little water passes through the wound, and he is able to empty the bladder voluntarily. The bowels have not acted since the 22d, and a dose of mist. sennæ comp. has been this morning given.

26th. Bowels were opened several times by the medicine; the patient's mouth is still so sore as to prevent his masticating meat; but, with this exception, he complains of nothing; pulse 84, of nearly natural beat. He takes a little porter, and has an excellent appetite.

The power of mercury in subduing inflammation, of membranous surfaces in particular, is now well known; but, under circumstances similar to the present, Mr. Green had seen it employed in two cases only, viz. of strangulated hernia, where inflammation of the peritoneum had come on, being complicated with that of other textures in the vicinity of the wound. In both these instances, the effects of the remedy were as decisive as in the purest idiopathic inflammation. It was evident, from the symptoms which became developed on Feb. 12th, in the above case of lithotomy, that very serious inflammation of the peritoneal membrane had set in, originating probably in the cellular tissue between the latter and the organs contained in the pelvis, which was of course wounded in the operation, and, when inflamed, is very prone to *sloughing*. Mr. Green considered that the patient, whose circulation during health had been languid and deficient in energy, as evinced by the state of countenance, would not bear much further depletion by venesection; yet some active treatment was required. Judging from the great utility of the plan in ordinary instances of phlegmasia, and the favourable results in the two cases of hernia, he, therefore, determined upon the trial of mercury, to be given to affect the mouth speedily.

It might be said that the patient would have done well without the mercurial treatment; but Mr. Green does not think this at all a probable view of the case, for, in his opinion, the inflammation would have proceeded, (and who can tell to what extent?) and proved destructive to life. The issue of the case was to him most satisfactory, and such, that he would be strongly disposed to adopt the same means in future under like circumstances.—BETA.

XII.

MERCER'S HOSPITAL.

A CASE OF RUPTURED INTESTINE, WITH REMARKS ON SOME EFFECTS OF CONTUSIONS OF THE ABDOMEN. By JOHN HART, M. R. I. A., &c.

[Dublin Hospital Reports, Vol. V.]

Case. July 12th, 1826. An hostler, aged 36 years, received a kick from a horse on the abdomen, at 11 o'clock, a. m., and was brought into Mercer's Hospital at six in the evening of the same day, complaining of excruciating pain over the whole abdomen, with constant vomiting. He was pale, anxious, pulse 140, lower extremities drawn up, abdomen flat and rigid, with extreme tenderness. He had been bled previous to admission, and some purgative medicine exhibited, which was thrown up by vomiting. He had made no water since the accident. A catheter drew off two pints. Leeches were applied to the abdomen, and an emollient enema exhibited. Loose stools were the consequence. The symptoms were not ameliorated, and the patient died at five o'clock on the following morning.

Dissection. "The peritoneum was suffused with numerous small red vessels, and coated over with a thin layer of fawn-coloured lymph, which could be easily scraped off, and in which no red vessels were visible; the intestines and omentum were agglutinated to each other, and to the inner surface of the abdominal parietes in several places, through the medium of this soft lymph; a quantity of serous fluid tinged with bile, and mixed with the contents of the intestines, was found within the sac of the peritoneum; this was altogether free from any fetid odour. On examining the intestines it was found that the effusion had taken place through a rupture in the upper portion of the jejunum, which divided this intestine half across; owing to the retraction of the coats of the intestine, this opening was of an oval form, and surrounded by a raised border consisting of the everted mucous membrane.* The lymph was in greatest abundance, and the adhesions were most extensive in the vicinity of this opening. There was a large dark-coloured patch on the arch of the colon, produced by an ecchymosis between its coats; but this intestine was unbroken although distended with fæces, some of which were nearly solid, as if they had been retained there for some length of time.

Between the layers of the transverse meso-colon and behind the root of the mesentery, there was a large quantity of dark coloured coagulated blood, amounting in quantity to about sixteen ounces. This blood had been shed from the smaller branches of the mesenteric vessels, as we ascertained by a careful examination that the aorta and all the large veins were uninjured."

Mr. Hart enters into a disquisition on rupture of intestine without breach of the abdominal parietes, because such an occurrence has not been satisfactorily accounted for hitherto. To our minds there is no great stretch of intellect required upon such an occasion. Whatever portion of intestine are not in a state of collapse, are filled more or less, with air or other matters liquid or solid. The parietes of the abdomen investing the intestines are elastic. Now we can conceive no more difficulty in the occurence of a rupture of one of the intestines, under the operation of external violence, than the breaking of a bottle of wine in a hamper that had fallen off a cart, or was kicked by a horse's hoof. We are not convinced that "this particular kind of injury almost invariably happens to the jejunum, where it is continuous with the duodenum," because our memory serves us with more than one instance when blows on the abdomen ruptured other portions of intestine. We do not therefore attach very much importance to the following explanation given by Mr. Hart.

"Some other cause than simple distention must therefore operate in predisposing a certain portion of intestine to suffer the injury in question. It occurs to me, that this may more justly be attributed to the circumstance of the intestine being to a certain degree fixed on some resisting surface, at

* "As described by Mr. Travers in his work on Injuries of the Intestines."

the moment when it receives the impulse of the contusing force. Such is the condition of the upper portion of the jejunum, which at its commencement is fixed to the spine, and which for some inches lower down is confined to the vicinity of that part by the shortness of its mesentery. The absence of such contiguous resisting surface, would explain why it was that the arch of the colon in the case here cited escaped being torn, although the violence had acted on it with a degree of force sufficient to rupture the blood-vessels between its coats, so as to produce extensive ecchymosis. Every part of the large intestine, however, is not so exempt from rupture produced from external violence, as are the arch of the colon and the more moveable part of the small intestines; the cæcum, for instance, which is usually bound down by the peritoneum to the surface of the right iliac fossa, is occasionally burst by external violence. There is a case of this kind related by Mr. Speer in the fourth volume of these reports."

Some cases of rupture of the liver and spleen are alluded to by Mr. Hart, and also rupture of the urinary bladder. But on these we need not dwell. The following observations are extracted on account of their practical tendency.

CONTUSION OF THE ABDOMINAL PARIETES.

"A contusion of the parietes of the abdomen may sometimes produce a degree of suffering, which might lead the observer to suspect at first, that rupture of the intestines had occurred. The most remarkable case of this kind which I recollect to have witnessed, occurred in a private of the Enniskillen Dragoons named Connor, whose horse fell and rolled over him at a review in the Phœnix Park on the 30th of July, 1821. When brought to the King's Infirmary, immediately after the accident, he was suffering great pain over the epigastrium, so considerable that he could not endure the slightest pressure; his breathing was anxious and hurried, but his pulse was not above 80, and full; he had no vomiting. He was much relieved by fomenting and leeching the abdomen, the use of an emollient enema, and rest for a few days, after which he speedily recovered and returned to his duty.

The symptoms which follow a rupture of an intestine with extravasation of its contents, are of such a complexion as to render the diagnosis between this injury and those other effects of contusions of the abdomen which I have here noticed, a matter of great difficulty. Its occurrence is indicated by the following symptoms: sudden acute pain mostly accompanied by fainting; the pain suffering no remission, but on the contrary, increasing in severity; vomiting sets in and continues until the termination of the case; the abdomen is flat and rigid, and intolerant of pressure; the countenance becomes deadly pale, and anxious, and the features shrunk; the pulse is small, feeble, and increased in frequency to 120 and upwards. In every case of this injury which I have seen there was retention of urine.* The patient generally dies within twenty-four or thirty-six hours after the accident; and on dissection there is discovered a rupture of the upper portion of the small intestine, or of some portion of the large intestine where it is fixed; there is extravasation of the intestinal contents, and lymph is extensively effused on the surface of the peritoneum, which in many places forms adhesions between the contiguous surfaces of the intestines."

Our author, though he cannot propose any plan of treatment based on experience of its efficacy, suggests that purgation must be improper, by its exciting the peristaltic action of the intestines, and thus increasing the effusion of their contents. Instead of purgatives, he would advise opiates, while local inflammation is to be counteracted

* "It is a curious fact, that retention of urine should follow rupture of the intestine, in other mammalia as well as man. Thus, in a Kangaroo which I have just dissected, and which animal died in consequence of ruptured intestine from an accident, the bladder was in a state of extreme distention."

by leeches or other sanguineous depletion, aided by counter-irritation. By these means, he imagines that sufficient time might be gained for the formation of adhesions around the wound of the intestine, by which the extravasated fluids might be circumscribed, and at length find their way along the intestine.

"Since the above was written, I have been informed that views respecting the treatment of this disease, somewhat similar to those I have arrived at, have also occurred to Dr. Graves and Dr. Stokes, who have communicated the following particulars respecting a case successfully treated on these principles in the Meath Hospital. A middle aged man was admitted on the 27th of June, 1830, apparently in the last stage of peritoneal inflammation. The disease was of three days standing, had supervened suddenly, in a few days after hypercatharsis induced by a large dose of glauber salts, and followed by long continued exposure to cold. It was attended by several of the usual symptoms of peritonitis from ulcerative perforation of the intestine. The belly was swollen, and so exquisitely tender, that the slightest pressure made the patient utter screams. The countenance was hippocratic, and the patient tormented with constant hiccup. Coldness of the extremities had commenced and the pulse was weak and slow. Before the hour of visit, leeches had been applied to the belly without relief, the patient was then ordered one grain of opium every hour.

The next day it was found that the symptoms were improved.

The patient had not experienced the slightest coma, headach, or delirium. The same plan of treatment was persevered in, the daily dose of opium being gradually diminished until the 7th of July, when the convalescence having been completely established, the remedy was omitted. During this time diarrhœa set in for three or four days severely; this was treated by the application of a few leeches to the anus, and the use of anodyne enemata.

The patient took in all one hundred and five grains of opium (exclusive of that in the injections) without ever experiencing any of the usual effects of this substance when exhibited in large doses!"

Experienced practitioners are well aware that, in certain diseases, especially those accompanied by much pain, opium may be given to an amount that would destroy life, if given in health—or in other kinds of diseases. Thus in tetanus, we have given tincture of opium in three drachm doses every four or five hours, without producing any more effects on the brain or nervous system than so much water! In such cases, the stupifying effects of opium appear to be *expended on the pained and irritated parts*, without being extended to the other parts of the living machine.

XIII.

STEEVENS' HOSPITAL.

CASE OF INFLAMMATION OF THE VENA CAVA, ILIAC, AND FEMORAL VEINS. By JOHN CRAMPTON, M. D.

A BOY, aged 14 years, was admitted into Steevens' Hospital, April 1st, 1830, labouring under considerable swelling of the whole abdomen, which was very tense and sore to the touch, with sense of fluctuation. The limbs were very much swollen, apparently to their utmost extent—tender on pressure—and exhibiting large blue veins very conspicuously, both on the limbs and abdomen. The breathing was anxious and disturbed, pulse frequent and hard, occasionally irregular, countenance bloated, with a purple tinge. He could scarcely lie down, and he complained also of distressing palpitation of the heart. His bowels were confined, though he had taken aperient medicines. The urine was scanty and high-coloured. the disease commenced a fortnight before his reception into hospital, with intense inward pain in the epigastric region. Venesection had been attempted, but failed—leeches were then applied, but no relief obtained. The breathing became more embarrassed, and the dropsical symptoms increased. Stethoscopic examination shewed

the lungs to be sound; but the action of the heart was occasionally strong, tumultuous, and irregular—then again quiet. 2d April, the day after admission, he was bled —and took calomel, jalap, and cream of tartar internally. 5th April. Leeches to the chest—and next day to different parts of the abdomen—small doses of elaterium—castor oil and oil of turpentine. 8th. Leechings repeated, and the other parts of treatment continued; but no relief was yet obtained. On the 10th, the right leg and thigh assumed the appearance of phlegmasia dolens, being swollen enormously and very painful on pressure. On the 12th, the limb became erysipelatous, with severe pain in the groin, to which leeches were applied, with fomentations, &c. but the limb proceeded to a gangrenous state, and the boy died on the 17th April. We shall give the dissection in the words of Mr. Bond, who examined the body.

"Skin jaundiced; superficial veins on the anterior part of the chest, dilated and varicose; lower extremities swollen, particularly the right, which was gangrenous in the anterior and upper part of the thigh, and the inferior part of the leg, in its whole circumference. An incision gave exit to a yellow serum, which, with adipose tissue, occupied the thickness of two inches between the skin and muscles.

On opening the abdomen, the cavity contained a pint of citron-coloured fluid, the membranous viscera were pale and free from disease, the stomach contracted and empty, spleen and kidneys natural. The liver was slightly enlarged, its structure of a marbled appearance. The lobulus Spigelii was considerably larger than natural, softened, and of a light yellow colour.

The femoral and iliac veins, as also the cava for three inches and a half above its bifurcation, were contracted, thickened, and partially imbedded in a granular fatty substance, their calibre clogged up by masses of ash-coloured lymph, and in some points wider than the rest, by half-coagulated blood; an adventitous membrane of a rich carmine colour lined the inner coat of the vessel, and from which it could be dissected, leaving this coat sound, but this with the external coat, from which it was easily separated, was white and thickened like an artery. This membrane was in some places disorganized, as if it suffered from gangrene.

A large oval tumor, two and a half inches in length, and one and a half in diameter, filled the vein from its entrance into the auricle, to within an inch of the point where the vein was closed; it was connected by slight adhesions to the lining membrane of the vein, solid, composed of fibrine, disposed in cells, enclosed in a delicate capsule of light yellow colour, with slight traces of vascularity through it; a scrofulous tumor the size of a walnut was connected with the former, and made some pressure on the cava.

The venæ hepaticæ were also blocked up with fibrine. The lungs were healthy; the pleura contained a quantity of fluid similar to that in the abdomen; the pericardium contained about six ounces of fluid; the heart was small, but free from organic disease: the head was not examined."

Dr. C. informs us, that "intense pain in the epigastrium was the first symptom" in this case—and he surmises that the vena cava itself was probably the part first affected with inflammation—and obstructed by the usual deposits of fibrinous concretion—and, finally, that this secretion or perturbed action of the vein extended downwards to the iliacs, on arrival at which, "the usual symptoms of phlegmasia dolens" ensued. Now we would ask Dr. Crampton, or any other practitioner of experience, whether he believes this to be the usual state of things in the last mentioned disease, not one case out of a hundred of which ever proves fatal?

We cannot imagine, indeed, how any one who has seen the phlegmasia dolens of parturient women, can confound it with this serious—generally mortal phlebitis.

"That general hydropic effusion should be the consequence of such a degree of obstruction, or that tumultuous and disturbed action of the heart should attend inflammation of the vena cava, is not surprising.

Such sympathetic occurrences are easily explained in those cases where the gradual advancement of the early symptoms of disease, and the order in which they proceed, can be ascertained. A superficial examination might induce a practitioner to consider the heart as the organ primarily concerned, but here the value of the stethoscope was evinced. The action of the heart was not of that character which denotes change of structure in that important organ; no doubt disorder in its function was quite obvious; while the perfect state of integrity of the lungs, although the respiration was embarrassed, intimated that the thoracic organs were not those which were primarily instrumental in the production of the dropsical affection, however they might in the end have conspired towards it by their sympathetic state of disturbance. That a scrofulous diathesis assisted as a predisposition, and as aiding the action of the occasional causes, I believe there can be little doubt. In the series of morbid changes, in this instance, some might suppose the external tumours to have been consecutive to the internal irritation of the coats of the veins, instead of having existed as antecedents, but this is a matter of but little consequence."

Dr. C. thinks it possible that many of those refractory cases of dropsy, which refuse to yield to treatment, may be connected with venous inflammation and its consequences, "as in the ordinary occurrence so often met with in phlegmasia dolens." In opposition to Dr. Crampton, we maintain that the swelling in phlegmasia dolens is not dropsical. It is elastic, and the dent made by the finger rises rapidly again to the common level—so very different is it from dropsy or œdema. It is astonishing that so obvious a distinction should have escaped such a man as Dr. Crampton! We do not doubt that, in his *post-mortem* examinations of what he terms PHLEG. DOLENS, he found the "veins inflamed, and the vessels often plugged up with fibrine and purulent effusion"—because we verily believe that he never examined a case of the disease in question—unless the patient died of some other complaint. We have never seen death result from this disease, nor have we met with any of our brethren who has seen it terminate fatally. That phlebitis is a much more common disease than was imagined some years ago, we readily grant—and as it is very generally fatal, we separate it from phlegmasia dolens.

XIV.

LUNATIC HOSPITAL OF TURIN.

PATHOLOGICAL APPEARANCES PRESENTED IN THE BODIES OF THE INSANE DEAD.

1. *Case of Cheerful Monomania.* The dura mater much injected, and adhering in many places to the pia mater—the latter softened—the brain pale and rather softer than natural—cerebral convolutions effaced—right ventricle full of water—cerebellum and spinal marrow sound—lungs disorganized—stomach and intestines livid, with gangrenous spots—liver softened.

2. *Melancholic Monomania with tendency to Suicide.* Membranes of the brain gorged with blood—no other unusual appearance in the head or chest—small intestines inflamed, as was the whole mucous membrane of the digestive tube, from the mouth downwards—many aphthæ in this track—liver enlarged and indurated—biliary concretions in the gall-bladder—spleen enlarged and indurated.

3. *Mania with Chorea.* Effusion under the arachnoid—cerebral substance hard and much injected—sanguineous effusion into the spinal canal, with traces of inflammation along the spinal marrow—all the other organs sound.

4. *Mania which terminated in Idiocy.* Some points of gangrenous aspect in the small intestines—brain very much softened, with much serum in the ventricles—nothing unusual in the other organs.

5. *Suicidal Mania.* Meninges and cerebral substance highly injected—heart large—traces of phlogosis in the digestive tube, especially in the duodenum and jejunum, whose parietes were thickened.

6. *Mania with Pride.* Meninges thickened and injected, having the appearance of parchment—strong adhesions between the two hemispheres—brain itself much injected—intestinal tube slightly inflamed.

7. *General Mania.* Much effusion between the membranes of the brain—pia mater inflamed even to suppuration—cerebellum sound, as were the thoracic and abdominal viscera.

8. *Melancholia.* Considerable inflammation in the small intestines—cerebral meninges injected—the other organs sound.—*Annale Universali de Medicina*, 1830.

These appearances only prove that the insane will not die, no more than the sane of mind, without some corporeal disease which almost always leaves traces of its existence in the dead body. But they throw little light on the cause of the maniacal or monomaniacal phenomena. We can hardly doubt, indeed, that the functions of the mind can be disturbed, without some antecedent or cotemporaneous disturbance of a corporeal structure—and we may suspect the seat of the functional disturbance in the early part of the malady, by finding traces of altered structure after death. Yet it is only surmise, and not proof. Suppose the primary irritation which disturbs the judgment or reason of an individual be seated in the digestive tube:—that irritation may have ceased long before death, but long after the irritation was seen established in the brain or its membranes, where we find the traces of death on dissection. To one conclusion we may safely come, namely, that in every kind of mania, there is a bodily irritation somewhere, and that the brain or organ of thought must become either primarily or secondarily affected, before the phenomena of insanity shew themselves.

XV.

MILITARY HOSPITAL OF NAMUR.

CASE OF SPINAL APOPLEXY. By M. FALLOT, M.D.

THE following case is interesting in many points of view, as will be seen in its perusal.

A man, 20 years of age, tall and well formed, having never before experienced illness, began to complain of loss of appetite and muscular force, to which was added occasional hæmoptysis of two or three days duration at a time. Nevertheless he continued his military duties till the 11th of May, when he entered the hospital, in the following condition:—face flushed, swelled, and puffy under the eyes, which were injected—complained of slight headach, with extreme lassitude, pains in his limbs, and some difficulty of swallowing. The head was clear, the pulse not accelerated, skin natural, tongue moist, breathing easy. In the evening, however, there were decided symptoms of cerebral congestion, and he was bled to 14 ounces, after which the cerebral symptoms were much mitigated. The night was passed in a state of sleeplessness and restlessness. On the visit next morning, the intellects were clear; but there was great inquietude and jactitation, in consequence, as he said, of the intolerable pains in his limbs, which were spasmodically affected from time to time, during which, his face became of a blue colour, his head was strongly retracted backwards, and any attempt to bring it forward, was attended with violent pain. The cervical region was swelled on the posterior part, and very hot. The pulse was concentrated—the bowels confined. Forty leeches were applied to the nape of the neck, and a purgative lavement exhibited. By these means, the cervical pain and tumefaction were diminished—and also the jactitation and pain in the limbs. At the evening visit, the patient was calm—he could bring his head more forward—deglutition was easy—the bowels were well opened—there were colicky pains—and ten leeches were applied in the night to the track of the

colon. 13th May. There were symptoms of pulmonary engorgement, as râle crepitant —cough—sero-sanguinolent expectoration —blueness of the face—breathing short and laborious—action of the heart violent and tumultuous — pulse thready — extremities cold—cessation of the spasmodic contractions. We need not pursue the symptomatology. He died the same afternoon, at 4 o'clock.

Post-mortem Examination. The vessels of the brain were exceedingly distended, and the arachnoid infiltrated. The cerebral substance itself was firm, and unaltered. The vessels of the spinal membranes were also extremely injected. A layer of blood was found opposite to the 5th cervical nerves beneath the pia mater of the medulla, which was thereby raised. This layer gradually increased in thickness and breadth, as it descended, and covered the whole medulla spinalis down to the cauda equina. No morbid appearance presented itself in the substance of the spinal marrow itself. The lungs were gorged with black and frothy blood. The heart was very large, and the parietes of the ventricles of unusual thickness.

This kind of case is not common, and deserves record. The symptoms were signally alleviated by the detractions of blood; and had the effusion on the spinal marrow not been so rapid, it is probable that life might have been saved.—*Journal Complementaire.*

XVI.

SIR PATRICK DUN'S HOSPITAL.

Cases of Diseased Brain. By Robert Law, M. D. Fellow of the King and Queen's College of Physicians in Ireland, &c.

[Dublin Hospital Reports, Vol. V.]

Case 1. *Tumour in the Brain.* A boy, aged 13 years, was admitted into Sir Patrick Dun's Hospital, for distressing palpitation of the heart, increased by quick walking, or ascending an eminence. His respiration was laborious and oppressed, and he was very plethoric. Before admission he had had two convulsive attacks, preceded by a dull pain in the left side of the head, from which he has never since been quite free. The treatment was exclusively directed to the cardiac affection. When six weeks in hospital, he was seized with an epileptic fit, followed by febrile symptoms, which degenerated into coma, in which state he died on the fourth day.

Dissection. "Considerable turgescence of the vessels on the surface of the brain. In the substance of the right hemisphere of the brain, and about an inch from the surface, there was a tumor as large as a hen's egg, hard and firm in its structure, while the brain in which it was imbedded was soft and diffluent; it was of a greenish yellow colour. The left ventricle was distended with limpid serum; the right ventricle contained no fluid.

The pericardium adhered to the heart through the medium of a dense adventitious membrane two lines in thickness, the heart larger than natural, lungs healthy, liver much increased in size, without any apparent deviation from its natural structure; mesenteric glands unusually developed. A section of the tumor exhibited a uniform consistence and colour."

The above case shews the difficulty of ascertaining organic diseases of the brain, and the imperfect measure which external symptoms afford of internal mischief!

Case 2. A girl, aged 12 years, became dull and languid, without making any complaint. Her face was shrunk, and countenance expressive of suffering. Her appetite declined, pulse became small and frequent—skin hot and dry—tongue loaded—breath offensive. And now she complained of flying pains in the abdomen, with confusion in her head on awaking in the morning. The abdomen was rather hard, but not tender. An evening exacerbation of fever took place at seven o'clock—there was a teazing cough, with glairy expectoration. The respiration was feeble under each clavicle. A tumour formed on the scalp and

suppurated—a similar one appeared on the right cheek—emaciation rapidly advanced—the fever increased—the abdominal pain became more severe—the skin harsh and dry. In the midst of these symptoms she was seized with violent pain in the head—her hands and arms became paralyzed—the countenance distorted, and death ensued in two days, the intellectual functions remaining undisturbed.

"*Dissection.* A circular portion of the cranium, corresponding to the suppurating tumor in the scalp, was denuded and rough, and immediately underneath it, and to the same extent, there was a deposition of coagulable lymph on the surface of the dura mater; on the surface of the brain, and in the ventricles, there was a considerable quantity of serum; the substance of the brain seemed as it were dissolved, and had the appearance of being soaked in water. In the left posterior lobe of the cerebrum, and not far from its surface, there was a tumor, the size of a nut, containing cheesy matter.

The apex of each lung was in a condensed state, and contained small encysted cheesy tubercles. The parietal and visceral peritoneum were so intimately united as to be separable only by dissection; also the convolutions of the intestines were firmly glued together by a thick adventitious membrane, in whose substance there were numberless cheesy tubercles, generally of the size of a pea. The liver was larger than natural, but exhibited no alteration of structure, it was only paler than usual: upon its convex surface, and corresponding to the attachment of the suspensory ligament, there was a tumor the size of a pigeon's egg, containing the same cheesy matter as the smaller tubercles. The mesenteric glands were not unusually large."

The above case exhibits a strong tendency to general formation of tubercles in the different cavities, with irritative fever. She was the tenth child of the same family, who had been carried off, one after another, by phthisis, and there can be little doubt that, had she survived the peritonitis, she would have fallen a victim to the family disease.

CASE 3. *Caries of Cranium—Mollescence of Brain.* A young female, aged 18 years, was delicate from infancy, and had suffered from glandular abscesses at the age of seven or eight years. Latterly several tumours formed on the head—softened, and ulcerated. She was then seized with convulsions, and became hemiplegiac of the right side. In this state she was admitted into hospital. There were now two ulcerations on the head, one of them laying bare the dura mater after destroying the bone. The heaving of the brain was here distinctly visible, and, at each elevation, a quantity of purulent matter was pumped up from under the edges of the sore. The muscular power of the right side was lost; but sensibility remained. The speech was almost unintelligible, and she complained of slight pain in the right side of the head. Leeches, purgatives, frictions, &c. relieved her so much that she left the hospital in six weeks much improved. She remained three weeks tolerably well—was then seized with fever—brought back to the hospital, and died in a few days, sometimes comatose, sometimes convulsed.

Dissection. "In the situation of the ulcer above the left ear, a circular portion of the cranium, about eight lines in diameter, was entirely removed; the internal lamina of the left parietal bone for about a third of its extent was destroyed, exposing the cancellated structure of the diploe, there was also considerable caries of the inner plate of both parietal bones, and the frontal, where they meet at the superior fontanelles, as also in the course of the sagittal suture: the eroded surface was rough and irregular; there were numerous small circular perforations leading from the diseased internal portions of bone to a smaller diseased portion of the external lamina; they were of various dimensions, one was capable of admitting a large quill, while others did not exceed the small holes which afford passage to the nutrient vessels of the bone; through the larger one came the purulent matter which we observed to be pumped up at each motion of the brain. The external or cra-

nial surface of the dura mater corresponding to the diseased bone, presented a rough fungoid appearance, owing to a deposition of lymph, while the internal or cerebral surface was natural. The surface of the brain exhibited nothing peculiar, either in point of vascularity or colour, but in the substance of the left hemisphere, and external to the corpus striatum there was a considerable breaking down and ramollissement of the cerebral structure, but no appearance of purulent matter; the literal ventricles were distended with colourless serum.

The base of the left lung was in the first stage of pneumonia; all the abdominal viscera, were healthy; the uterus was excessively small."

The above case is almost precisely similar to one detailed by Dr. Abercrombie, where the same destruction of bone, the same deposition of lymph on the dura mater, and the same disorganization of the cerebral substance obtained.

4. *Abscess of the Cerebellum.* A girl, aged eight years, was received into the hospital with unequivocal signs of effusion in the head. She was quite comatose—the pupils widely dilated—pulse small and thready—extremities cold. She died in twelve hours after admission.

On dissection, there was found moderate congestion, in the superficial veins of the brain. The substance was rather soft—the ventricles filled with serum—in the left lobe of the cerebellum a defined abscess, containing half an ounce of pus. The viscera of the thorax were healthy—the mesenteric glands enlarged.

5. *Hemiplegia, without evident Structural Changes in the Brain.* "John Stringer, aged 34 years, five years ago, while serving in the East India Company Service, received a bayonet wound in the forehead over the left eye, which penetrated the bone and gave rise to a sore which occasionally healed and broke out again; since the infliction of the wound he has never been quite free from uneasiness in his head; about six months since, while in bed, and without any previous warning, he was seized with paralysis of the right side and loss of speech; he partially recovered from these when he got the fever, for which he was admitted into hospital; he exhibited the following symptoms: quick pulse, tongue coated with yellowish fur, skin jaundiced and burning hot, epigastrium and right hypochondrium tender on pressure; a sore about the size of a six-pence over the left eyebrow, with exfoliation of the bone to such a degree as to expose the dura mater; complete paralysis of the right side with loss of speech; for a few days he shewed some signs of amendment, but suddenly he became insensible, in which state he continued until death.

Dissection. The portion of dura mater corresponding to the exfoliated bone seemed to have its fibrous lamina destroyed, while its serous lining was thickened and of a blueish colour; the subjacent brain had undergone no morbid change; there was considerable effusion on the surface of the brain. All the thoracic viscera were healthy; the liver enormously enlarged, weighed ten pounds, but did not appear to have its structure altered; the spleen, nearly three times its natural size, exhibited a strange appearance; its superior third was converted into a yellowish, soft, cheesy substance, the middle third had undergone that breaking down, that softened condition, which prolonged ague often produces in this organ; the inferior third had retained its natural organization and consistence; the mucous membrane of the stomach was deeply vascular."

6. *Hemiplegia, with Ramollissement of Brain.* The subject of this case was a watchman, of irregular habits, who a week previously was apparently in the enjoyment of health. He was seized with apoplexy, and lay in a state of stupor, for some time; but was at length roused by copious bleeding. His left side was then paralytic, and his speech lost. In this state he was carried to the hospital, where he continued for two months, with a low typhoid fever, under which he at length sank.

On dissection, there was found extensive softening of the thalami optici and corpora striata.

The last two cases are placed in juxtaposition by our author, to shew that opposite conditions of the brain will give rise to the same symptoms during life! This is a mortifying truth—but it cannot be concealed! It shews, as the daily experience of every man shews, that medicine never can approach to any thing like an exact science! We must grope in the dark till the end of time. Experience alone can confer on men—and not on all men—the art of groping, with some chance of finding their way!

II. HÆMATEMESIS DEPENDENT ON DISEASE OF THE LIVER. By R. LAW, M.B.

[Dub. Med. Trans.]

Case 1. Mary Treyne, aged 43, was seized suddenly, four days ago, with vomiting of blood, and discharges from the bowels, of similar kind, continued till she entered the hospital. On the day of admission she vomited not less than a quart of coagulated blood, and exhibited all the symptoms characteristic of such a loss. Infusion of roses with sulphate of magnesia and sulph. acid was administered, and hot water was applied to the lower extremities. 28th Nov. vomited very little blood, but had frequent discharges from the bowels. She died in the course of the evening.

On examination, the lungs were found to be quite healthy—heart soft, flabby, and pale—stomach containing a pint of blood, and the intestines containing much of the black tarry matter such as had been passed by stool. "The entire tract of the gastro-intestinal mucous membrane so far from exhibiting any unusual vascularity, seemed quite blanched."

"The liver presented an irregular tuberculated or granulated surface; was contracted in size; its anterior margin much less acute than natural. A section of it exhibited small round bodies of various dimensions, separated by dense fibro-cellular septa; this fibro-cellular tissue seemed to be the proper cellular tissue of the organ increased in density, furnishing, loculi or capsules to these roundish bodies, which are probably the acini in a state of hypertrophy; these bodies adhered loosely to their capsules, and could be easily detached from them; the consistence of the organ was greater than natural; its colour a whitish grey."

Case 2. Peter Quinn, aged 38, a hotel waiter, was admitted in Nov. 1827, for vomiting of blood, which was soon followed by ascites. This last yielded to mercurial medicines and vegetable diuretics. He was discharged cured in January, continuing well till the ensuing September, when he was again seized with vomiting of blood, and with dropsical swellings, not only of the abdomen, but also of the lower extremities and the scrotum. His breathing was short and laboured—the surface of the body jaundiced. No medicine made any impression on the complaint. Paracentesis abdominis was then performed—peritoneal inflammation ensued—and he died in thirty-six hours.

The lungs were healthy—the heart small and flabby. The peritoneum was highly inflamed, and the mucous membrane of the stomach was injected, while that of the intestines was pale. The liver presented the same irregularity of surface and deviation from natural structure as in the preceding case. The author met with two other cases almost exactly similar, and where the appearances after death were the same.

"These cases unequivocally prove the vomiting of blood to depend upon the peculiar alteration of structure of the liver, which was found to exist in all; and it is remarkable, that although almost every pathologist has noticed this deviation from natural structure in the liver; Frank seems to be the only one who has observed how often it and hæmatemesis stand to each other, in the relation of cause and effect.

This diseased condition of the liver would seem to consist in an entire change of the proper substance of the organ, into a dense fibro-cellular tissue, forming a kind of pulp or parenchyma, in which the roundish bodies (which projecting on the

surface, give the organ its irregular appearance) are imbedded, its specific weight is greater than natural, while its actual size is less, and so far from passing the margin of the ribs, it seems to have receded within its ordinary bounds, showing how fallible a criterion of the health of the organ, is either its size or its descent below the ribs; its form is altered; it becomes more round; its anterior margin more obtuse; its division into lobes less defined; its peritoneal covering thicker and more opaque than natural; its section exhibits no trace of blood vessels, which we may presume to be either compressed or obliterated by the altered structure; hence the impediment to the vena portæ pouring its blood into its ordinary channels, and the influence of the obstruction reverts upon all the branches which concur to form this vein, and thus we do satisfactorily account for the hæmorrhage; this fact would tend to confirm an opinion of the ancients respecting the office of the liver; that it was a diverticulum or reservoir of the abdominal venous circulation. As this pathological condition of the liver is most frequently met with in persons who have indulged freely in the use of ardent spirits, and as we know that the direct tendency of such an indulgence is to produce a chronic inflammation of the gastro-intestinal mucous membrane, would it be pushing conjecture too far to suppose the disease of the liver to depend upon the extension of inflammation, from the intestine along the ductus communis choledochus?"

III. CASES OF PUTREFACTIVE DISORGANIZATION OF THE LUNGS. By ROBERT LAW, A.M. &c.

[Dublin Med. Trans.]

Modern pathologists have applied the term "gangrene" to a diseased condition of the lungs, one peculiar character of which is the fetid expectoration. The disease in question will not bear comparison with gangrene as it occurs on external parts, and as cognizable to the senses.

This modification of disease, unlike gangrene occurring as a termination of inflammation, never exhibits, at any period of its progress, any of the legitimate characters either constitutional or local, of genuine inflammation; it developes itself in a constitution either naturally weak, or rendered so by previous disease, and such as we should, à priori, say would be unequal to the effort of healthy inflammation; the internal mischief is not announced either by an acceleration of pulse or heat of skin. The patient first complains of a sharp pain in the side, which is soon succeeded by a profuse discharge of either pure blood, or of a mixture of blood and purulent matter; he now feels himself much lighter, relieved as it were from a load, and enjoys an interval of ease, when he renews his complaint of his breathing becoming much oppressed; he is again relieved by discharging a large quantity of mixed blood and pus; he thus continues for some time alternating between comparative ease and distress, till a teasing cough with a fetid expectoration establishes itself, the sputa are generally of a greenish purulent character, floating in abundant thin mucus, and sometimes so acrid as to create a burning sensation in the throat; the breath emits a most offensive fœtor; the complexion is either a dusky yellow or a dead white, and always expresses distress and suffering. The sallowness of the complexion which I had observed in two cases, led me to suspect that the liver was involved; however, examination after death did not confirm my suspicions, though in both cases the disease was confined to the right side. The constitution soon begins to sympathise, and hectic fever sets in, but by no means observes the regularity and uniformity of the hectic which accompanies phthisis pulmonalis. The emaciation proceeds; the appetite fails; nothing can allay the irritation of the cough; the fœtor of the expectoration is insupportable both to the patient and the attendants; the bowels become much deranged. If you inspect the chest you will observe, in general, the part corresponding to the affected portion of the lung quite motionless, as if it took no part in the act of respiration.

Nothing is more uncertain than the duration of this disease, before it arrives at its fatal termination. I have had one case under my care for more than a year, and have known another which survived the first attack more than a year and a half; if it be combined with tubercular phthisis, it runs a more rapid course, and has its character modified by the complication; in general, death seems to be owing to the irritation of the system, rather than to the extent of the local mischief. The anatomic characters of the disease identify it with Hunter's description of unhealthy suppuration, or with what Travers describes as the results of gangrenous inflammation, or inflammation whose powers are inadequate to carry it to a healthy termination; these results are imperfect adhesion, an unhealthy suppuration, and a vitiated effusion at the expense of the life of the parts, complicated with a chemical decomposition of both fluids and solids."

We now proceed to the cases, which we shall considerably abridge.

Case 1. J. Dunne, aged 19, a thin delicate boy, was admitted into Sir P. Dun's Hospital, for fever, in the progress of which he was seized with a profuse expectoration of "fluid arterial blood,"* which he said had often happened before. Camphor, digitalis, and opium were administered. The hæmoptysis ceased. After various turns of illness he at length left the hospital; but returned again, decidedly hectic, his breath and expectoration being extremely fetid. In all the right lung respiration could scarcely be heard—under the left clavicle was imperfect pectoriloquy. He died in two days from this time, and six weeks after admission into hospital.

Dissection. "Head not examined; the apex of the right lung adhered so firmly to the corresponding part of the cavity of the chest, that it could not be separated without breaking its structure; this lung was much heavier than natural, and felt quite solid, except at its base; the investing pleura was universally thickened, and in some places had acquired the density of fibrocartilage. The entire substance of the lung, except the base, was thickly studded with tubercles; the pulmonary tissue surrounding these bodies was either broken down into a soft brownish sloughy substance, or so condensed, as to have its cellular nature quite destroyed; there were many irregular cavities traversed by bands of pulmonary structure; the surface of each cavity exhibited a blackish sloughy appearance; the base of the lung was quite free from tubercles, but was in the first stage of pneumonia.

The left lung exhibited a similarly disorganized condition, the small irregular cavities were more numerous, and the intervening pulmonary structure softer, presenting the same dirty sloughy broken down appearance. On pursuing some of the bronchial ramifications which opened into these cavities, their lining membrane was highly vascular, and, in some instances, black; the base of this lung, too, was in the first stage of pneumonia, and free from tubercles; the left cavity of the pleura contained about a pint of straw-coloured serum; the pericardium about eight ounces of the same fluid. There was also an infiltration into the subserous tissue, connecting the substance of the heart and the pericardium; the heart was small and flabby; the abdomen contained about two quarts of serum, all the viscera of this cavity were healthy."

Case 2. Arthur Maguire, aged 37, in embarking for England fell into the river, and continued in his wet clothes till the vessel reached Liverpool. Five days afterwards he was seized with pleuritic stitches in the left side, and soon began to spit blood and matter, in consequence of which he returned home, and came into hospital. On the day of admission, he discharged about a quart of "fluid arterial blood"—his countenance was pale and exsanguious—pulse feeble. He referred the pain to the left side

* Dr. Law must be aware that *arterial* blood from the lungs is *black* blood.—*Ed.*

below the nipple. Pectoriloquy with bruit amphorique was distinctly heard in this point. This side was distinctly more prominent than the right; and, on percussion, yielded a dull sound posteriorly and inferiorly, where respiration was inaudible. The diagnosis marked was—"cavity communicating with the cavity of the pleura, and effusion into the left side." The spitting of blood ceased; but was succeeded by cough and purulent expectoration, which soon became so fetid, that it was disagreeable to approach him. At intervals he discharged pints of greenish matter, which sometimes resembled, in colour and consistence, the yolk of egg. His breathing was relieved by these discharges. Obstinate diarrhœa, with colliquative perspirations set in, and he died in seven weeks from his admission into hospital.

Dissection, 24 hours after death.—"On opening the thorax, a considerable quantity of air escaped from the left side; there was an effusion to the extent of two pints of thin greenish purulent fluid into the left cavity of the chest; a dense coating of lymph connected both pleura pulmonalis and costalis on this side in all points, except along the side of the spine, where these two membranes firmly adhered; the lung was compressed to about two-thirds of its natural size; the superior half was quite free from disease; in the middle of the organ, and about midway between the anterior and posterior margins, there was a cavity capable of holding a hen's egg, not lined with any defined membrane, but by the unequal jagged sloughy tissue of the lung; this cavity opened into the cavity of the pleura by an irregular opening about the size of a half-crown piece. Into the large cavity several smaller ones opened, all presenting the same unequal sloughy appearance. The base of the lung was hepatized, the bronchial glands were much enlarged, and contained an inky fluid in their centre; the right lung was quite free from disease. This case resembled pneumonia in its anatomic characters more than phthisis, but in its constitutional symptoms, at no period did it evince the high inflammatory action of true pneumonia."

Case 3. John Walsh, aged 41, was seized, after exposure to cold, with pain under his right breast, and in ten days afterwards had cough and spitting. At the end of the fifth week he discharged a pint of purulent matter. From this time, cough with fetid expectoration, were the principal phenomena. The disease gradually sapped the foundations of life, and death put an end to his sufferings. Before this event the right side of the chest became quite motionless. It did not seem to act in respiration.

Examination. "The body very much emaciated; the right pleura pulmonalis and costalis adhered so firmly, that with great difficulty could they be separated; the lung was much heavier than natural. On making a section of it from its apex to its base, there were innumerable small cavities with sloughy broken surfaces; the general structure of the organ resembled the dirty greenish softened pulp, to which we sometimes find the spleen reduced; a thin blackish matter exuded, emitting a most disgusting fœtor."

Case 4. John King, aged 24, of sallow and unhealthy appearance, stated that, about a month previously, after exposure to cold in a fit of intoxication, he was seized with severe pain in the right side, which was soon followed by cough, profuse spitting of blood, and difficulty of breathing. After a week he applied to a dispensary, where he was bled, blistered, and physicked, with some relief:—but he still continued to expectorate large quantities of blood, and also passed blood by stool. On the 22d January the following symptoms were noted.

"Countenance of a pale leaden hue; lips white and bloodless; pulse 120; respiration weak; very much hurried; great prostration of strength; appetite quite gone; excessive thirst; cough very teazing, coming on in paroxysms; breath most offensive; sputa have the appearance and smell of putrid blood; he sometimes discharges

nearly a pint of this blood at a time, and seems to vomit rather than expectorate it; from which, and from his discharging it by the bowels, I fancy he swallowed it in fits of coughing; is constantly bathed in cold clammy perspiration. Percussion and auscultation bespeak the left lung healthy; the right side of the chest sounds dull, in its superior two-thirds both anteriorly and posteriorly. Gargouillment, cavernous respiration, and imperfect pectoriloquy heard to the same extent anteriorly."

He died four hours after admission into hospital.

"Body not much emaciated; almost the entire of the right lung was hollowed out into a cavity, containing a large quantity of grumous blood in a state of putrefaction, this cavity was lined by a membrane, the small remains of pulmonary structure in its immediate neighbourhood had undergone imperfect hepatization, and resembled liver that had been macerated; the left lung quite healthy; the pleura investing its base, and also, the corresponding portion of this membrane lining the diaphragm, were converted into fibro-cartilage; the heart was small and flabby."

This case convinced our author of a circumstance which he had long suspected—that profuse discharges of blood in cases where we know the lungs to be affected, often come from the stomach, in consequence of the patient swallowing the blood that comes from the lungs, and which, when accumulated, excites vomiting.

This paper of Dr. Law's concludes with a long critical note on Dr. W. Philip's doctrine respecting dyspeptic phthisis. From this note we shall only quote one short passage, and our readers will acknowledge that we have often made the same remark which Dr. Law makes.

"When Dr. Philip observes, it is surprising the state from which he has seen the lungs recover on the removal of hepatic irritation, I suspect, had he employed auscultation, he would have ascertained the integrity of the organ, and that this state of the lungs consisted in mere functional disorder. I cannot help questioning the accuracy of Dr. Philip's views on this subject, when I find him asserting that he has seen a person in the last stage of phthisis saved, by the glands of the neck swelling and suppurating."

Scarcely a day passes in which we do not see patients pronounced to be labouring under "*dyspeptic phthisis*," and where the whole attention is directed to the liver and digestive organs, when, in reality, the lungs are found to be in a state of complete disorganization. If auscultation do no other good than dissipate this hallucination respecting "dyspeptic phthisis," the labours of Laennec deserve a crown of glory.

IV. REMARKABLE CASE OF OVARIAN DISEASE. By W. F. MONTGOMERY, A.M. &c.*

Mary Clarke, ætatis 45, mother of nine children, the youngest nine years old, was admitted under Dr. Montgomery into Sir Patrick Dun's Hospital, on the 13th Aug. 1828. There was slight ascites, and a tumour in the right iliac region. There were frequent discharges from the vagina of a fluid like water, and, on examination, a small cauliflower excrescence of the os uteri was detected; the urine was scanty, the pulse weak, and the countenance expressive of peculiar distress. She had first perceived the tumour ten years previously; the ascites had commenced within the last four months. She had formerly had hernia on both sides, and the sac on the right was now distended with the dropsical fluid.

Diuretics were prescribed; but on the 17th she complained of pain in the abdomen, relieved by leeches and the hip-bath. The secretion of urine was greatly increased, but so was the ascites, and the uneasiness was such, that on the 31st she was tapped by Dr. Jacob at the left side, as far as possible from the tumour. Six quarts of clear fluid were drawn off, with great relief, and, along with the fluid, several thin membranous flakes passed through the

* Dublin Med. Transactions, Vol. I. Part I.

canula, and were thought by Dr. Montgomery to be ruptured hydatids. The abdominal tumour could now be traced down into the pelvis at the right side, and extended beyond the median line of the abdomen. In four days, a return of the ascites was taking place, with anasarca of the left leg and thigh. We need not specify the means employed; they procured no benefit. On the 11th Sept. the operation of tapping was again performed, with the same relief as before, a substance of a reddish colour and gelatinous consistence escaping through the canula. The tumour was now at least half as large again as on the first tapping, twelve days previously. Diarrhœa was now established—she rapidly sank, and on the 21st she died. The water had not re-accumulated so rapidly after the last tapping.

Sectio Cadaveris. Great emaciation; left leg and thigh very anasarcous. In the abdomen, much deep yellow-coloured serum, and at least two pints of pus.

"On turning aside the integuments, a very singular appearance presented itself; a tumour chiefly composed of fine membranes, dividing it into innumerable cells, which, with their fluid and transparent contents, resembled, at first sight, hydatids; the membranous septa dividing the cells were supplied with blood-vessels of a considerable size running along their edges, so that the whole tumour presented a clear and red colour. At its upper and left part there was a deep cleft or fissure, into which the open hand might be passed without any force, and when carried downwards, and towards the right side, it entered a round sac equal in size, and much resembling a large flat turnip; this was the right ovary which lay just under, and was filled with the same structure as the part of the tumour first brought into view.

In fact, it seemed as if the peculiar structure had at first grown in the ovary, which thereby became greatly enlarged, until at length the coat of the ovary had given way, and out of the fissure so formed, the morbid growth continued to enlarge, turning over the edges of the fissure, and covering the front and sides of the ovary in which *it had formerly been contained*, so that the tumour was in a great measure turned inside out.

This change in the state of the tumour might, I conceive, have happened in one or two ways; either by the coat of the ovary giving way to the pressure of the morbid growth within it, which seems probable, from the circumstance of that substance having evidently continued to grow out of the fissure; or the breach in the coat or capsule of the ovary might have been produced by external violence or accident, a cause but too probably true, as I afterwards ascertained that the poor creature had been exposed to a great deal of ill-treatment from a brutal husband. The tumour was of such a size, that while its inferior extremity was in the pelvis, its superior border was as high as the ensiform cartilage, its length being twelve inches and its breath nine."

The tumour adhered to the neighbouring parts by some slight, but firm, membranous bands. The uterus was twice its ordinary size, and scirrhous; the os uteri exhibited the numerous flocculent processes, which are all that remain of cauliflower excrescence after death. The left ovary was somewhat enlarged, tuberculated on its surface, and very hard.

"On this case and dissection I would now wish to make two or three brief observations. With regard to the tumour itself, without wishing to theorize or offer any opinion on its peculiar nature, I believe, in the first place, that it is a form of disease not before observed, as affecting the ovary, or at least not hitherto described, as far as my research enables me to speak. I have dissected a great number of cases of ovarian disease, and have preserved specimens in my museum, of almost all the different species enumerated by authors, but to none of these does the disease in this case bear the slightest resemblance in character; another peculiarity, which I look upon as very remarkable, consists in the open state of the tumour, and its internal surface being in consequence exposed in the living body, and literally in a great degree turned inside out.

From the surface thus exposed, serum must have been abundantly poured out, and hence, perhaps a cause, or at least one source of the effusion into the peritoneum, and whether the circumstance can be fairly attributed to this, or to some other more general cause, it is to be recollected, that during the period in which the effusion took place most rapidly, the tumour was found to have nearly doubled its surface.

The state of the tumour appears to me also to account for the great disproportion between the uneasiness felt and the degree of distension existing.

It seems not so easy to account for the œdema of the thigh and leg occurring at the left side, while the tumour was at the right. A very intelligent pupil, Mr. Dwyer, who gave me his valuable assistance in the dissection, suggested that it might perhaps have been caused by the weight of the tumour pushing the enlarged and scirrhous uterus forcibly to the opposite side of the pelvis, and I agree in the probable correctness of this ingenious suggestion."

XVII.

ST. GEORGE'S HOSPITAL.

CHRONIC INFLAMMATION OF THE TESTIS.

The diseases of the testis have lately attracted much attention, and the able work of Sir Astley Cooper will communicate information on the subject to a wide circle of professional readers. There are very few points of surgery or of physic, however assiduously they may have been studied by even the ablest men, which are altogether incapable of further elucidation. The high road to truth is the knowledge of facts, and well it is for her when those facts are carefully studied and accurately recorded. In the investigation of disease, we peruse individual cases in the great book of nature. Cases then are the language of disease, symptoms are its alphabet, and the best and wisest practitioner is he who can decipher the characters and read the page, without the deceitful help of the glass of theory, or the gloss of error. In former times we had chiefly theoretical works upon medicine and for this plain reason, that dissection did not correct the misconceptions of mere observation and experience. We are revolutionized now, if you will we are reformed. The diffusion of the knowledge of general and special healthy anatomy, and the yet more modern cultivation of morbid anatomy have constituted a new epoch, and formed, as it were, new views and new men. Out of evil cometh good, out of good, evil. We are not so much advanced in the treatment, as we are in the knowledge of the nature of diseases; some doubt if our therapeutics are as good as our forefathers'. But this is not the business of the present report, and we return to the point from which we started; that the study of individual cases will form, and alone will form, the good practitioner, whether in surgery or physic. It is the object of reporting to convey, in some sort and fashion, the experience to be gained in a hospital to those who have not access to such institutions. With the utmost circumspection in observing and fidelity in recording, this object can only be imperfectly attained; without these qualifications it cannot be attained at all. We have endeavoured, and we shall endeavour, to render the cases which we are the means of conveying to the public as authentic as our poor abilities permit, and to any thing beyond this most necessary qualification we make no pretence.

Chronic inflammation of the testis may arise in two ways; it may be the sequela of acute inflammation, or it may steal on without any severe symptoms in the first instance. In the former variety, the nature of the case is usually made out with little or no difficulty, indeed the experienced surgeon will detect it in an instant. It is not always so with the latter; obscurity frequently hangs on the diagnosis, and the doubts of the sur-

geon are occasionally satisfied only by a sort of ex-post-facto inference, by the effects of mercury. Sir Astley Cooper appears to consider the two forms of chronic inflammation of the testis as essentially the same. We cannot but suspect that there is a greater difference between them than the able Baronet allows. In the chronic inflammation of the testis following the acute, the epididymis and vas deferens are more peculiarly affected, there is a less disposition to the tubercular formations in the testis, and the affection is more completely under the control of mercury, than we see in the "chronic inflammation," or yellow tubercular disease, not proceeded by active inflammation. Such, at least, are the impressions produced on our mind by the facts which we have witnessed, but the observations of a young reporter are as dust in the balance, when weighed with the opinions of experienced surgeons.

We might detail many cases of hernia humoralis, but most practitioners must have witnessed examples of the affection, and we need not detain our readers by relating any. The following facts will serve our purpose, as they shew the condition of the vas deferens and epididymis, left after acute attacks of inflammation.

CASE 1.—*Acute Inflammation of each Vas Deferens and Epididymis successively.*

A man was admitted under Mr Keate with retention of urine, from stricture of long standing, which for three weeks previously had been impermeable to any instrument. Small bougies were passed through the stricture, but a false passage appeared to exist. The hip-bath, anodynes, and purges were employed, and the size of the bougie was gradually increased. On the 18th of Feb. of the present year a bougie was introduced. On the 20th, he was seized with thickening, induration, and extreme tenderness of the vas deferens, as far as it could be felt, and of the epididymis on the left side. He had no affection of the testis previously to this.

Hirud vj. *Cat. lini. H. sennæ. Coxarium.*

On the 21st, he felt slight pain in the other testis, and, on the 22d, the bougie was passed again. In the afternoon there was enlargement, induration, and excessive tenderness in the vas deferens and epididymis on the right side. Next day these symptoms were increased; there was fever, and the urine was loaded with salts.

C.c. lumbis, ad ℥vj. *H. sal. c. Pulv. Ip. c.* gr. v. 6*tis horis.*

He was relieved by the cupping. On the 26th, the swelling and pain on the left side were diminished, and a little so on the right. After this, the pain and enlargement gradually diminished on both sides; but, on the 8th of March, there was still induration both of the epididymis and vas deferens, and some tenderness on pressure. The body of the testis was apparently unaffected on both sides. It is curious that the patient now became subject to intermittent fever, connected evidently with the state of the urethra.

CASE 2.—*Suppression of Gonorrhœa—Inflammation of the Vas Deferens, Epididymis, and Body of the Testis.*

An out-patient had gonorrhœa, which had existed for some weeks; the scalding was much abated, the discharge thick, but less. On a Saturday night, after exposure to a cold wind in his occupation of street sweeping, the discharge and scalding suddenly ceased, and he found the right testicle grow painful first, and then become enlarged. On Monday he applied at the hospital. The vas deferens was nearly as thick as one's little finger, hard, exquisitely painful when touched; the epididymis was in the same state; the body of the testis a little enlarged and tender; pain in the loins; little fever; no urethral discharge or scalding.

To bathe the penis often in warm water—haust. sennæ stat.—C.c. lumbis ad ℥vj.

Two more cuppings were required, and salines, with antimony, &c. The pain and swelling of the body of the testis yielded first, then the vas deferens resumed its natu-

ral state; but, on the 8th March, there were still tenderness and induration of the epididymis, although they were less than before. Two or three days previously to this, the discharge had re-appeared in the urethra, with slight scalding. The treatment now consisted in the application of camphorated mercurial ointment to the scrotum, support of the parts, and the administration of infusion of salts and roses.

Here were two cases of acute inflammation, chiefly of the vas deferens and epididymis, consecutive to irritation or inflammation in the urethra. After the violence of the inflammation was subdued, there remained in each induration and epididymis and vas deferens, requiring a longer or shorter time, and the employment of certain means for their complete removal. The affection of the body of the testis in each was slight, and in each soon passed away. We will take the same affection under other circumstances.

CASE 3. *Rupia—Griping, &c. from Mercury—Inflammation of one Testicle.*

A man had been for some time in the hospital, under Mr. Hawkins, for rupia, the exciting cause of which was cold. He had also ulcerated sore throat, and rupia-ulcerations of the conjunctiva lining the palpebræ of both eyes. He was put upon sarsaparilla, but obliged to omit it on account of fever. He resumed it, along with blue pill, but this had only been taken five days when it griped him and made his mouth sore. He also complained of pain in the right testis, and on examination the scrotal portion of the vas deferens was found indurated, swollen, and painful; the epididymis was the same. He said that previous to this attack he had been subject to slight induration of the parts affected. Under leeches, the omission of the mercury, the application of a stimulating lotion, and persistance with the sarsaparilla, the affection readily subsided and left the testis as before.

It is most probable that, in his instance, the inflammation of the epididymis and vas deferens was occasioned by the mercury, as it accompanied, with singular correspondence, other well known effects of that drug. If the supposition be correct, the fact is another instance of a disease producible and curable by mercury. In the next case we see a more ulterior stage of the inflammation of the vas deferens and epididymis.

CASE 4. *Chronic following Acute Enlargement of the Vas Deferens and Epididymis.*

James Harris, æt. 21, was admitted Sept. 8, 1830, under Mr. Babington. In the epididymis of the left testis was a solid enlargement, about the size of an almond, or bigger, chiefly seated in the cauda and body of the epididymis. The vas deferens was indurated and thickened as high as it could be traced, and both it and the epididymis were tender upon pressure. Thick yellow discharge from the urethra without scalding—health very good.

Six or seven weeks previously he had caught a gonorrhœa. About four weeks previously, being exposed to cold, the urethral discharge ceased, and inflammation of the testis suddenly set in. He did nothing for it, and in the course of three weeks the swelling had in a great measure subsided, leaving the thickening of the epididymis. At this time the urethral discharge returned

Recumbent posture—Ung. hyd. fort, c. Camph. testi. Calomel, gr. iij., *o. n. H. sennæ, o. m.*

On the 14th, the mouth was slightly affected, the enlargement of the epididymis was diminishing, the vas deferens remained unaltered. *Omr. omnia præter unguent.* Towards the latter end of September he was made an out-patient. The enlargement and induration of the epididymis and vas deferens were much diminished, but not quite gone.

CASE 5. *Inflammation of the Epididymis and Body of the Testis from blow—Hydrocele.*

John Cobbett, æt. 36, a gardener, admitted October 6, 1830, under Mr. Babington. Oval enlargement, rather broader below,

than above, half as large again as a full sized egg, in left side of scrotum—tumour transparent. At inferior and external part a hard lump, about the size of a large nut, apparently seated in the globus minor of the epididymis. Testis little enlarged and not at all hard. Pain, of sharp shooting character, in pubes and right loin. No urethral discharge—health good.

Eleven days ago he bruised the testis on the bough of a tree. He suffered pain at the time—in two days afterwards the testis swelled and grew very painful—and the pain continued to augment, as he pursued his usual avocations.

He was purged, leeches were applied over the testicle, a stimulating lotion was employed, and the mouth was rendered slightly sore by the blue pill. On the 20th the epididymis was diminished in size, but there was still some fluid in the tunica vaginalis.

We might adduce many cases of the same description, but we presume that the foregoing will be thought sufficient. It is evident that in acute inflammation of the testis from irritation in the bladder or urethra, the vas deferens and epidiymis are, as might à priori be expected, more particularly the parts affected. After the enlargement and induration of the body of the testis have subsided, thickening and consolidation of the vas deferens and epididymis remain, requiring time for their removal. This removal is expedited by support of the part, stimulating lotions on the subsidence of the more acute symptoms, and the subsequent application of the mercurial ointment with camphor, followed by stimulating plasters. Sometimes this chronic induration of the parts in question requires the exhibition of mercury internally, and this is particularly the case when there has been in the first instance, and still remains some fluid effusion into the vaginal tunic. Perhaps, when the testicle has been exposed to mechanical injury, its body suffers more than in hernia humoralis from the causes already mentioned. Yet in several such cases we have seen the vas deferens and epididymis severely affected at first, and remain indurated long afterwards, the body of the testis having apparently recovered itself.

We now proceed to the detail of some cases of a complexion somewhat different from the preceding, to cases of what Sir Astley Cooper has termed simple 'chronic inflammation of the testis;'—and Mr. Brodie, the 'yellow tubercular disease.' It is a subject of great importance. Many a testicle was formerly removed, from the nature of the affection not being well understood, but the diffusion of information throughout the profession is rendering such an unnecessrry operation more and more uncommon. For the appearances observed in the dissection of testes thus diseased, we refer to Sir Astley Cooper's work, or the review of it in this journal, and to the papers of Mr. Brodie, in the Medical and Physical Journal.

CASE 6. *Chronic Inflammation apparently from Rheumatism—Mercury—great benefit.*

George Glasspool, æt. 32, a farmer from Berkshire, admitted May 26, 1830, under Mr. Keate.

Left testis enlarged to about the size of an ordinary kidney potatoe—tolerably oval in shape and regular on the surface—hard—not tender on pressure. Cord felt behind, but no distinction of testis and epididymis, at least no separate enlargement of latter, nor induration of the cord. Skin of scrotum rather reddish anteriorly, and adherent to the testis for a space as large as a half-crown piece. On using any exertion, feels a lancinating pain extending from the testis to the 'left kidney,' and accompanied with a sensation of dragging in the loins. No affection of the urine or urinary passages. Health pretty good—face rather sallow.

About twelve months ago, having suffered from what he calls rheumatism of his left upper extremity for three months previously, he found the testicle begin to swell, when the rheumatism gradually disappeared. In two or three days after the commencement of the swelling the lancinating pain came on. Under the application of goulard water and one leech, the swelling,

&c. disappeared, and he remained well till the cold weather of last winter, when the disease returned and has since continued with little let or hindrance ; the skin of the scrotum has been adherent for three weeks or a month ; has taken no mercury. Has had a clap or sore, it is not clear which, three times, the last five years ago, and took calomel on each occasion, but without his mouth becoming affected. At the time when the present complaint commenced he had a large carbuncle on his leg. His mother's father had a large swelling of the testicle, which lasted for many years, until his death, but gave no particular inconvenience. His own brother has a swelling of the testis of six months standing, and carbuncles.

Leeches were applied two or three times, with purgation, and saline medicines, in order to get rid of the pain about the testis, and some little fever under which the patient laboured. On the 1st June he was ordered *pil. hyd.* gr. v. *nocte maneque.* On the 14th, the mouth being very sore, the pills were omitted, and *ung. hyd. fort.* applied to the testicle. The testis was now much diminished in size and softer, the scrotum not near so adherent, no pain in the loins, cauda epididymis felt distinct and rather harder than the rest. On the 21st, he was compelled by family business to leave the hospital. The enlargement of the testis had still farther subsided, but was not quite dispersed.

CASE 7. *Enlargement of both Testes—Dropsy—Death.*

Thomas Jones, æt. 35, admitted Oct. 27th, 1830, under Mr. Hawkins.

Right testis about three times its natural size, ovoid, narrowest above, smooth on the surface, without distinction of testis and epididymis ; to the feel generally hard, except anteriorly and inferiorly, where there is an imperfect sensation communicated of some fluid being situated in the tunica vaginalis ; tender on pressure, moderately heavy ; vas deferens slightly thickened. Left testis about twice its natural size, ovoid, not so regular on its surface, without distinction of testis and epididymis. Occupying its middle, a hard knotted lump, tender to the touch. Superiorly and inferiorly, a pretty distinct sensation communicated of fluid in the tunica vaginalis. Vas deferens not enlarged. No pain in testes—pain of dull aching kind about right inguinal ring, extending to hips and loins, especially right—pain in left leg. Out of health—aspect sallow—pulse frequent, irritable—tongue foul—bowels habitually costive—belly rather tympanitic—pain on pressure in the hepatic region—emaciation.

Eight or nine years ago had a sore on penis, for which he took mercury, and no secondary symptoms ensued. Has had one or two claps. In India he had symptoms of hepatic character, for which his mouth was made very sore. About ten or twelve months ago he returned to this country, and was for some time in better health, but soon dyspeptic symptoms re-appeared. Three or four months ago he found the right testis enlarged ; the left testis swelled afterwards, and soon the pain in the loins succeeded. Has drunk freely of spirits.

He was put upon sarsaparilla and blue pill, the right testis began to diminish in size, but on the 14th November ascites had commenced. It rapidly increased, the legs became anasarcous, and on the 22d Dec. the patient died rather suddenly.

On dissection the liver was found much tuberculated and hardened, with a considerable quantity of fluid in the belly. The disease in the testes was shewn to be chronic inflammation with the yellow tubercular formation. We did not see the examination of the body, but the preparation is in the museum at the hospital.

CASE 8. *Chronic Enlargement of Left Testis Effusion into the Tunica Vaginalis—Mercury employed.*

Millington Neighbour, æt. 28, a servant, admitted Sept. 15, 1830, under the care of Mr. Keate.

Enlargement of left testis larger than a Windsor pear, pyriform with the broadest end below—heavy—not painful on pressure, nor when quiet—inconvenient from its

weight in walking, when the unpleasant sensation extends to the left loin. Tumour solid behind and below, particularly on the side next the other testis: in front and above more elastic, soft, imperfectly transparent. Scrotum unadherent and tunica vaginalis apparently not thickened. Cord felt rather enlarged, entering the tumour behind and below.

Has had gonorrhœa twice, the first time seven years ago, when the left testis swelled but subsided. Present affection of left testis began two months ago, and for some weeks before that he had had no discharge whatever from the urethra. Swelling commenced from below and gradually mounted upwards. He applied to a surgeon, who made his mouth sore by a *few* pills, without benefit. He went to another surgeon, who gave him a truss, which increased the disease. A country surgeon then said it was hydrocele, tapped it, and let out half a pint of clear fluid, some enlargement of the testis still remaining. In two or three days the tumour regained its former size, and is not increasing.

18th. Pil. hyd. gr. v. bis die.

Oct. 1st. Mouth slightly sore. To-day the hydrocele was punctured with a trocar, and 12 or 14 ounces of very yellow but clear fluid discharged; it coagulated completely by heat and by nitric acid. The testis was felt irregular and enlarged.

Ung. hyd. c. Camph. nocte maneque, scroto infricand.

By the 9th the swelling had formed again, but was not quite so large; the testis was felt enlarged, hard, very painful; the epididymis was chiefly affected. In about a week after this he left the hospital at his own desire, in order to return to his situation. The testis was in the same state as at the last report.

CASE 9. *Chronic Inflammation and Abscess in Testis—mercury—Ulceration of the Scrotum.**

Henry Bishop, ætatis 26, admitted Feb. 17th, 1830, under the care of Mr. Hawkins.

Swelling of the right testicle of considerable size—on its outer side a separate tumefaction of feeling softer than the remainder. Pulse very quick—countenance sallow.

Swelling commenced three months ago, and was immediately accompanied by pain and tenderdess. It began in the epididymis and thence extended to the body of the testis, which increased in size gradually till three weeks ago, when it became very painful, swelled rapidly, and became soft in one part. At this time he had pain in the loins, white sediment in the urine, and, on examining the urethra, much pain near the membranous part. Four or five days ago the lump on the outside appeared, and has quickly increased. He has been an out patient; at first he had leeches, &c. then calomel, under which the testis diminished, though the epididymis remained hard and swollen. He took sarsaparilla with the calomel, but it disagreed.

The softer part was punctured, and three ounces of thick pus discharged; the testis was then felt hard and much swollen. He was ordered a dose of calomel and Dover's powder with a purge, and irritation subsided, while the surface of the abscess and the scrotum began to granulate.

23d. *Pil. hyd.* gr. v. *nocte maneque. Dec. sars. c. Oj. ext. sars.* 5i. *quotid.*

On the 26th there was more pain, which was relieved by matter issuing from another opening into the testis, which was enlarged by a bistoury. On the 4th of March the mouth was sore, the testis smaller. On the 13th he was ordered a pint of sarsaparilla, and on the 27th, the mercurial ointment with camphor. On the 3d April, the mouth was more sore; ointment omitted; pill only every night. On the 9th the scrotum had begun to ulcerate, with constitutional disturbance. The sarsa and mercury were discontinued, and he had castor oil, with solution of chloride of soda to the wound. On the 11th the ulceration was spreading.

H. salin. c. Liq. op. sed. ℥. *x. 4tis. hor. Haust. opiat horâ somni.*

* We did not see this patient during his stay in the hospital; the case is taken from Mr. Hawkins' ward-book.

On the 13th ulceration was not so rapid in its progress, nor was the surface sloughy, but the testis was extensively exposed, and the edges of the skin were everted; pulse frequent and small. On the 17th the surface of the testis was more healthy; skin undermined and dark coloured; pulse very small and frequent.

Mist. camph. ℥iss. *Ammon. carb.* gr. vj. *Tr. op.* ♏. xx. 6*tis hor. Solut. acid. nit.* (℥j. *ad* ℈j.) *ulceri.*

On the 20th, the unguent. opii was applied; on the 27th the edges of the skin were more healthy, and a chloride of soda lotion was used, whilst the patient was put on nitric acid internally. This produced hæmaturia and some hæmorrhage from the bowels, and was omitted on the 6th May.—The surface of the ulcer was now granulating kindly, but two sinuses ran into the testis, one to a considerable depth. He was ordered camphor and opium, and in a day or two conium. On the 18th the testis was much more healthy, the sinuses filling up; but the pulse was still frequent. He was made an out-patient.

CASE 10. *Chronic Inflammation of Testis—Abscess—Mercury—Sloughing of Scrotum—Large Mass of Tuberculous Matter removed.*

Isaac Marsh, æt. 32, a labourer from Guilford, admitted May 5th, 1830, under the care of Mr. Brodie.

Solid tumour of right testis, about the size of a Windsor pear, but not quite so long—largest above—irregular in shape, but not very rough on the surface—generally hard and unyielding. At the upper and anterior part a circular slight prominence, more elastic and yielding than the rest—head of epididymis felt distinct—at the upper and external part two or three small circular fistulous openings, through which a thin scanty discharge dribbles out. Tumor generally painful on firm pressure—no pain elsewhere—cord sound—no affection of urinary passages. Health good—appearance rather scrofulous.

Nine months ago he struck the testicle on horse-back, after which it swelled a little and was painful. Six months ago it suddenly became, without obvious cause, more swollen and painful, and has continued to grow worse till within the last month. The abscess at the upper part formed at Chritmas, broke, and discharged about a drachm of pus. He had gonorrhœa seven years ago, but was quite cured without injections. Has continued at his work till lately; has been leeched, used lotions, and taken pills for a month; they did not affect his mouth.

Tinct. Iodinæ, ♏. x. *t. d. Lot. Ammon. Mur. testi.*

21st. *Dec. Sars. c.* ℈j.—*Ext. ejusd.*, ℥ij. *Liq. hyd. oxymur.*, ℥ss. *M. quotid. Ung. hyd. fort.*, ℥iss. *Ung. pot. hydriod.* ℥ss. *M. testi applic.*

JUNE 25th. The ointment making the scrotum very sore, has been twice changed for the ung. zinci, and resumed as soon as the soreness went off. His mouth is now and has for some time been affected by the oxymuriate, but not severely. Testis more tender, and rather larger—cord a little enlarged—one small inguinal gland enlarged. The fistulous openings discharge more and thicker pus, and the probe passes for an inch or so under the skin of the scrotum. The sinuses were laid open, and granulations were exposed, springing apparently from the outside of the tunica vaginalis; no sinus could be found passing into the interior of the testis.

Omr. dec. sars., &c.

Calom., gr. ij. *Opii.*, gr. j., *t. d.*

JULY 8th. Ptyalism—wound of scrotum sloughing—general pyrexia.

Omr. calomel, &c. Mist. camph. c. T. opii., ♏. x., *t. d. Ext. col. c.* gr. v., *o. n.*

16th. Sloughing stopped—nearly whole of right side of scrotum in a state of superficial ulceration—some feverishness and dejection of spirits. *Cataplasma conii.*

On the 23d he was ordered calumba and acids. On the 30th a large mass of tuberculous matter was removed by enlarging one of the ulcerated openings with a bistoury. After this the wound improved, but on the 3d Sept. a probe could be passed deeply down under the integuments of the scrotum, and

the sinus was laid freely open. On the 6th he was ordered *pulv. sarsæ*, 3i, *4ter die*. On the 30th, the indurated lump had diminished, the sinuses were filling up, the granulations looked healthy, and the health was good.

Oct. 22d. For the last fortnight the testis has remained in a stationary state. To-day Mr. Brodie dissected away the remains of the organ, which was granulating; the bleeding was stopped by blue lint. After this the wound healed perfectly, and the patient was discharged cured in a few weeks.

CASE 11. *Chronic Inflammation of both Testes—Sinuses leading into their interior—Mercury.*

John Kinderson, æt. 23, a coachman, admitted July 7, 1830, under the care of Mr. Hawkins.

Enlargement of both testicles. Right about the size of a lemon, but longer—broadest above—with a transverse hardness in its centre, giving it something of an hour-glass form—fluid in the tunica vaginalis above and below. Towards the septum scroti posteriorly and inferiorly the testis feels indurated and knotty. At the inferior part of the scrotum some induration of the superficial parts, which are matted to the lower extremity of the testis; in this indurated part a small circular opening, from which thick yellow matter in small quantity may be pressed; it appears to issue from the testis. Cord sound.

Left testis not quite so large—hard—pretty regular on the surface—painful when handled; the enlargement seems to implicate testis and epididymis, which can be separately felt. At the bottom of the scrotum, much induration of the integuments, which are adherent to the testis, and present a circular fistulous opening, three lines, or more in diameter, leading into the centre of the gland, and giving issue to a thick yellow pus. Cord sound.

Little pain in either testis, excepting on pressure or exercise—no pain in loins. Health pretty good—appearance strumous—some coppery coloured stains, like those of rupia, on the lower extremities.

Two years and a half ago had gonorrhœa, of which he was cured in three weeks. The eruption (confined to the nates and thighs) appeared first nine months ago, and lasted for a month. Right testis was first affected, and two years ago Mr. Brodie evacuated from the tunica about half a tumbler full of clear fluid. In about three months the testicle began to swell again, and for the last ten months it has been in its present state. Has never had any pain in it. The abscess at the inferior part has existed for three weeks or a month.

Left testis has only been affected for three weeks, the tumefaction first appearing "underneath," where, for the last three years, there was always a sort of a pea. The abscess at the bottom broke about ten days ago. Has not had much pain in the testicle—nothing but poultices have been applied. The disease has not at all affected his sexual powers.

Pil. hyd. gr. v. *nocte maneque. Dec. sarsæ.*, ℥ss. *Ext. ejusd.* 3i. *quotid.*

On the 17th he was ordered two pills at night, and one in the morning, and on the 20th the gums were slightly affected. Both testes were smaller and less painful. On the 21st, only one pill prescribed at night. On the 25th there was pyrexia, with pain in the left testis. The pill and the sarsa were discontinued, and he was ordered infusion of roses and salts every four hours. Leeches were applied three times with much relief, and on the 31st he was enabled to resume the pill and the sarsaparilla. On the 10th there was less pain in both testes; the ulcer over the right was apparently healing—the abscess in the left was enlarged, and discharged healthy pus in greater quantity. He was at this time dismissed on account of irregularity of conduct.

CASE 12. *Chronic Inflammation of Testis—Fungus protruding through the Scrotum—Erysipelas—cure.*

Thomas Jones, æt. 20, a carpenter, admitted Sept. 15, 1830, under the care of Mr. Keate.

On right side of scrotum a fungus, larger than two walnuts placed side by side, and

of much the same form, projecting an inch or an inch and a half through the skin—surface of fungus displaying a greenish sloughy aspect in some places, large and feeble but otherwise healthy looking granulations in others—it secretes much healthy pus, but no distinct semen—is perfectly free from pain on being handled roughly—is constricted at the part where it passes through the ulcerated scrotal aperture. There does not appear to be much testis in the scrotum, in which the epididymis can be distinguished—cord healthy. Epididymis of other testis rather indurated, enlarged, and painful on pressure. Cord of that testis healthy.

Some pain in right loin; is troubled with nocturnal emissions. Has periosteal nodes on left tibia, and pains in various bones, not aggravated at night. Has on breast and back a cutaneous eruption, consisting of slight crusts, surrounded with a little zone of papulæ; beneath the crusts is a slight depression—no sore throat. Looks rather out of health.

Eighteen months ago had a sore on the penis, for which he took mercury for a month to salivation. A bubo appeared—the sore healed—the bubo was dispersed—and the throat became sore. He took sarsaparilla and thought himself cured. Twelve months ago the testis swelled suddenly and painfully, and *at the same time* the nodes appeared. Had many leeches, and the swelling of the testis diminished, that and the node alternating in pain. Eight months ago the cutaneous eruption appeared. The swelling of the testis increased, and three months ago it broke through the scrotum, when the previous pain was relieved. Has had strricture for four or five years.

17th. *Pil. hyd.* gr. v. *o. n. in* 3 *vices. Cat. lini. Inf. ros. c. Mag. sulph., o. mane.*

20th. *Inf. ros. c. Mag. sulph.* 3ss. *Tinct. gent. c.* 3j. *t. d. Omr. alia.*

He was now attacked with erysipelas of the scrotum requiring incisions, ammonia in the first instance, and more powerful support afterwards. In consequence of the erysipelas, two or three abscesses requiring punctures formed in the scrotum, and it was the latter end of October, before the swelling of the scrotum and penis had disappeared. The fungus now looked clean and healthy, and was much diminished in size; it had been for some time dressed with the powdered red precipitate. On the 1st December he was made an out patient. The fungus had entirely disappeared or retired within the scrotum, leaving an ulcer of very minute size, which, indeed, was all but healed. The testis retained to a remarkable degree its natural shape and size, and was not much indurated. He had become very fat, and lost his other ailments. He was directed to take sarsaparilla as an out patient.

CASE 13. *Chronic Fungus of one Testis—Wasting of the other—mercury—Erysipelas—cure.*

Thomas Napp, æt. 29, admitted Jan. 5, 1831, under Mr. Hawkins.

On *left* side of scrotum a chronic fungus of testis, protruding through an ulcerated opening in the integuments with thin inverted edges. Fungus of greyish sloughy appearance on its surface, not at all painful when handled, about the size of a walnut. No inflammation of scrotum around it. Testis felt in the scrotum connected with the fungus, and apparently rather enlarged. Vas deferens a little thickened. No pain in the testis—occasionally a little in the loins. *Right* testis wasted and of very small size. Cicatrix of former ulceration in right groin. Health pretty good—looks rather weakly. Says that he feels the usual sexual desires.

Not quite two years ago had a sore on the penis, and bubo, which suppurated, in the right groin. He took mercury, and in four or five months got rid of his disease, nor has he had secondary symptoms. About five months ago he injured the *left* testis by a blow on a saddle. It inflamed, leeches were applied several times, the acute inflammation subsided, but swelling, pain, and induration remained behind. About two months ago the

left side of the scrotum became red and painful. It was poulticed for a week, broke, and gave issue to some cheesy matter first, and then to the present fungus. Of late this has been subsiding rather than increasing; it has been treated by poultices. He has taken no mercury. He knows nothing of the wasting of the right testis.

6th. *Pil. hyd.* gr. v. *nocte maneque. Dec. sars.* ℥ss. *Ext. ejusdem* ʒij. *quotid.*

On the 7th powdered alum was directed to be applied daily to the fungus, and pressure to be made by sticking plaster. On the 11th the mouth was sore; the pill to be repeated only every night. On the 16th, the ptyalism was subsiding; pill night and morning. On the 25th, the red precipitate was substituted for the alum, little good having hitherto been affected. On the 28th the mouth was very sore, the fungus diminishing in size, its surface being dry and forming a slough.

Interm. pilulæ.

On the 1st February the alum was again resumed, as the fungus was not on the decrease, and this was again changed, on the 5th, for a lotion, consisting of five grains of the white oxyd of arsenic in an ounce of lime-water, with which the surface of the fungus was to be daily washed. After two applications of this lotion, the surface of the fungus became covered with a slough, and erysipelas of the scrotum was established. The erysipelas extended to the nates and thighs, and required ammonia and support. On the 11th day the erysipelas had disappeared. An incision had been made in the scrotum during its continuance, and two or three abscesses, requiring punctures, supervened. After the subsidence of the erysipelas, the fungus speedily diminished in size, being lightly touched every day with the nitrate of silver. At present, March 14, it has completely retired within the scrotum, the ulcerated opening of which has closed and healed. The patient's health, however, is not yet re-established. He is, and has for some time been, taking bark and acid.

Here we must bring this report to a close. We conceive that the cases detailed will give a fair sample of the various stages and aspects of chronic inflammation of the testis. Beginning with what may be regarded as the most simple affection, thickening of the epididymis and vas deferens, left after an attack of acute inflammation, we pass by successive stages to the fungus protruding through the scrotum, or to the conversion of the gland into an inorganized yellow tuberculous mass, incapable of performing any functions, exciting inflammation and suppuration in the scrotum, and requiring, as in case 10, to be removed altogether. We see the value of mercury in this disease, and we also see that here, as elsewhere, it requires to be used with circumspection. In cases 9 and 10, it certainly appeared to produce ulceration and sloughing in the scrotum, and it is to be observed that, in both these instances, there was abscess in the scrotum at the time that it was employed. Whether, under these circumstances, the use of mercury is generally or frequently followed by such consequences, we cannot pretend to determine, as the facts recorded are all we possess that bear upon this point. In case 11, it will be observed that there were sinuses leading into the interior of the testis, and that mercury produced no such mischievous effects, although one testis became inflamed under its use, and required three applications of leeches. We think these cases will serve to demonstrate, that the thickening of the vas deferens and epididymis left by acute inflammation, is much more under the control of mercury than the genuine chronic inflammation of the testis; the former appears to consist merely in the effusion of lymph, the latter, in the deposition of a peculiar, inorganized substance. We might have given many cases, even more illustrative than the preceding, of the power of mercury over this complaint, but our object has rather been to shew its different states and stages, than to put together many specimens of the same description.

We might, perhaps, with even the puny experience that we can boast of, have made more observations than we have done. But

our object was to write a report, not an essay; and we have seen so frequently how the study of a great number of facts modifies or overthrows the opinions founded on the observation of a few, that we feel extremely diffident in forming conclusions, and still more cautious of giving them expression.

XVIII.

HOPITAL DE LA CHARITE.

FRENCH OPERATIONS.

No idea can be more erroneous, no resolution more absurd, than to send young men to Paris to *learn* their profession. If they stop for a short time they cannot derive benefit; if for a longer time, they do not. We have seen a good deal of the effects of this method of study, as it is called; we have seen them before starting, and after coming back. In not one instance have we witnessed any thing like a rational improvement. These persons become Frenchified Englishmen; they learn to smoke and to drink coffee, it is true; if more apt and quick witted, to fence and to gamble; but to practice their profession with credit or advantage they seldom or never do learn in Paris. Now, if any thing could be acquired, one would think it were anatomy; yet even in that they are rarely accomplished. From the impossibility of making anatomical preparations in Paris, our English students fall into a habit of dancing a gallopade through a body, and too often are rendered slovenly cutters up, rather than dexterous and neat dissectors. But we will allow that a diligent young man becomes a good anatomist in Paris. Can he also become a good surgeon? We maintain that he cannot. The impressions of his youth, the recollection of what he has seen in England must rise before his mind when he witnesses a totally different method in France. He grows distracted and confused between opposite modes of practice and conflicting opinions; he knows not whether Hunter and Sir Astley Cooper or Dessault and M. Dupuytren are right, and he returns to his native land to undergo the same process of doubt and difficulty when he sees again the usages of his countrymen. Some persons may regard this as a caricature, but it really is none. Let a young physician or surgeon complete his *education* here before he goes abroad to hear other precepts and see other practice. He will then derive advantage from the scenes that are presented to him; he will observe, compare, and reason; he will find himself qualified to discriminate the points in which foreigners excel us, and those in which we excel foreigners; he will be informed not confounded; his opinions will be matured and strengthened by comparison, not disordered and overthrown by contradiction.

These reflections were excited by the perusal of a clinical report from La Charité, in the Gazette Médicale de Paris. All sensible and well-informed English surgeons have remarked the great mortality after operations in the Parisian hospitals; they have observed with regret that the exclamation of Frère Jacques, 'l'opération est achevée;—Dieu vous garde!' might not inappropriately be attributed to any of the surgeons of Paris at this moment. Our professional cosmopolites may be shocked at this assertion, yet it seems to be acknowledged by many of the French themselves. In the prospectus of a French medical journal we find the following passage.

"La chirurgie Française parait avoir placé le but de tout perfectionnement dans la partie du diagnostic et de l'operation; nulle enguette des indications, nul souci de la therapeutique générale et consécutive; il semble enfin q'on n'ai à agir que sur un corps inerte."

When a journal in France starts into existence with such a declaration, when such is the device upon its banner, what must we think of the state of French surgery, considered as as a means of alleviating human misery. If operations, bloody cruel operations, are looked on with admiration, it can only be by those who regard plague, pestilence, and famine as benefits also. No! operations

are our opprobrium, our disgrace, not our proper and legitimate boast; the mere operator is little better than a human butcher by rule. There is too great a taste for the knife at present;—shame to those who encourage it;—woe to those who practise it. Unnecessary operations bring discredit on surgery; unsuccessful ones, even when perfectly justifiable, inspire doubt and repugnance to it in the public mind. Patients who see or hear of their relatives or friends submitting to barbarous and frightful maimings, only that they might live for a month or a week, feel no great relish for the knife, when its use might bring safety and a cure. What a sarcastic, what a damning catalogue of *great* operations performed within these last few years, might a diligent cynic compile for the gratification of the world! But we have done, and we trust that these observations may not be without their effect.

Case 1. In the beginning of December, 1829, a man was brought into the wards of M. Roux, with fracture of the lower extremity of the fibula, rupture of the ligaments, and compound dislocation of the ankle-joint. The foot was drawn considerably backwards, the lower end of the tibia projected through the wound. The accident had happened from the patient's having slipped suddenly into a deep rut. The parts were covered with a poultice and a bandage was applied. On the third day a portion of the skin had sloughed, without much preceding inflammation, and M. Roux prognosticated the most unfavourable consequences. On the succeeding day the inflammation of the limb was more severe; fever and delirium supervened; and on the fifth day the patient died. It should be remarked, that on the second day distinct emphysema had been observed at the upper part of the leg and inferior part of the thigh. This was attributed by M. Roux to the introduction of air into the subcutaneous cellular tissue through the medium of the wound.

The reporter severely criticises M. Roux for his inaction in the preceding case. We must say that the treatment appears to us to have been inefficient and unscientific. If the injury was *very* severe in the first instance, the limb should have been amputated; or if circumstances were tolerably favourable, which they seem to have been, amputation might have been performed when the gangrene commenced. The application of poultices to the compound dislocation in the first instance, was wrong. We have used this case as the peg on which to hang the few observations that we have made on French operations and French education, observations that are not uncalled for or impertinent at the present time.

MISCELLANIES.

XIX.

CASES OF FOREIGN BODIES STUCK IN THE ŒSOPHAGUS.*

Case 1. In November, 1826, a man, after eating and drinking to excess at a village feast, was attacked with vomiting, and a sense of great uneasiness in the line of the œsophagus; he could neither swallow his saliva, nor any other liquid; respiration became difficult, and he was perfectly unable to articulate. A gentleman who was summoned, thinking him merely drunk, prescribed some simple diluent drink, and walked off. But suffocation seemed impending, and M. Boileau, of Nancy, was summoned. The patient indicated by signs that something gave him great pain in the region of the throat. On introducing an elastic gum bougie into the pharynx and œsophagus, it was stopped in the superior part of the lat-

* Archives Générales, Août, 1830.

ter. M. Boileau then took a bougie 14 or 15 inches in length, and fixing to one of its extremities some linen smeared with lard, he passed it into the œsophagus, and by its means pushed down the obstructing body towards the stomach. The patient immediately cried he was saved, and suffered no more inconvenience worth mentioning.

Case 2. On the 2d Sept. 1829, a woman applied to M. Boileau on account of pain in the middle of the neck. She said that on the 31st August she had swallowed a mutton bone, since which time she had had the pain, and been unable to swallow liquids or solids. By means of the elastic gum bougie, M. Boileau became satisfied of the presence of the foreign body in the œsophagus, on its right side and upper part. He then took an instrument (*tige en haleine*) and tying to one end a conical piece of sponge, about the size of a pullet's egg, he bound it tight with strong twine, which he allowed to remain on it for a quarter of an hour. He then unrolled the twine, smeared the sponge with lard, and passed it down the œsophagus into the stomach. Having left it there for a few minutes, he withdrew it gently, and as the broad end of the sponge travelled up the œsophagus, it caught the foreign body and drew it up into the mouth. In seven or eight days the pain in deglutition was entirely gone. The piece of bone thus removed, was part of the scapula of a sheep; it was fifteen lines long and six broad.

Case 3. A man laid a wager that he would swallow a five franc piece, intending at the same time to conceal it in his mouth. In the counterfeited efforts at deglutition, however, the trick failed, and the franc piece did really pass into the pharynx, where it stuck. The man now applied to M. Dupuytren. He attempted at first to extract it with a pair of curved forceps, but failed. He then took a very simple instrument, composed of a *tige en haleine*, twelve to fifteen inches long, and of sufficient diamter to be firm. At one end was a little rod (*virole*) stretching beyond the instrument, in the form of a small cylinder. Two metallic rings united at a portion of this circumference and separated about half an inch at their opposite side, were fixed by their concave surface and point of junction to the little suebal rod. This instrument being introduced into the pharynx and œsophagus, was passed to the level of the foreign body, the ring carried below it, and when the instrument was withdrawn, the five-franc piece was entangled in and extracted with it.

In his clinique on the above case M. Dupuytren mentioned two others which had been communicated to him by Baron Larrey. A soldier having made wager that he would swallow a five-franc piece did actually do so. The patient's health suffered little or not at all, but it was not till twenty years afterwards that the coin passed by stool; it was then blackish and much diminished in size. Another soldier having made a similar wager, the five-franc piece passed slowly down the pharynx and œsophagus, and stuck about its middle. A number of attempts at extraction remained, but none succeeded. Deglutition was not impossible, and the œsophagus was left undisturbed for six months, when the man was attacked with low fever, of which he died. On *dissection* the five-franc piece was found at the inferior part of the œsophagus above the cardiac orifice of the stomach. The walls of the œsophagus here were thickened, indurated, and in a state of suppuration.

XX.

SCHLOSS'S ANATOMICAL PLATES.*

WHATEVER may be the faults of JOHN BULL, he can hardly be accused of blind-

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* 1. Anatomical Atlas of Dr. M. J. Weber, Professor of the Royal Prussian University, Frederic William, at Bonn. Plates I. to XVI.

ness to foreign merit, or of pertinacious obstinacy in refusing to encourage that which is not of exclusively British growth. England is the mart for the produce of the world, whether it spring from the head or the hands; and deserving foreigners can rarely complain of not having experienced liberal encouragement in this land of wealth, liberty, and industry. We were led to this reflection by a glance at the work before us. The cultivation of practical anatomy in this country has of late been involved in such difficulties, not to say dangers, that it is not surprising if our knowledge on this subject is inferior to that which obtains elsewhere. The French, availing themselves of the opportunities which they possess, have given to the study of anatomy amongst them a degree of precision and accuracy, which, in many points, it does not boast of with us. The Germans, again, excel the French, and the anatomical researches of Soemerring, Meckel, Tiedeman, and others, have conferred a very high character on the anatomical science of the country.

Where bodies are procured with difficulty, risk, and expense, the student must necessarily rely more or less upon plates. Mr. Lizars deserves much credit for the attempt which he has made to meet this want on the part of the professional student; but although there is great merit both in the design and in the execution of his Anatomical Atlas, it cannot be concealed that it has many faults. Where constant reference can be made to the dissected *subject*, delineations of the parts must necessarily be more correct, than where such reference is not very readily obtained. It is for this reason, no doubt, that the anatomical plates of the German authors are so much more accurate than our own, and it is for this reason that we strongly recommend the Atlas whose title heads this article to the attention of the profession. We have looked over the plates with critical eyes, and we candidly avow that we have little fault to find with them—they are reasonable in price, the execution is admirable, and the information which they convey to be depended on. We recommend them alike to the young student, and the more experienced surgeon; we have hung them up in our own library, and we advise our brethren to purchase them and do the same. A master cannot make a more valuable present to his apprentice, a father to his son, than by giving him these plates to study, before or after he begins to read the still more accurate book of Nature. We hope that Mr. Schloss will follow up his design, and give a connected series of plates, embracing all the points of human anatomy, which it is right and profitable to know, and we dare to promise that if he do so, he will find his reward in the merited patronage of an English public. We shall mention the Parts from time to time as they are published, in order that our country readers may know the extent, character, and progress of this very useful work.

2. Explanation of the Anatomical Atlas. London: published by A. Schloss, Foreign Bookseller, 44, Southampton Buildings, Chancery Lane, 1831.

XXI.

CASE OF OSSIFICATION OF THE MITRAL AND AORTIC VALVES. By PATRICK CLINTON, M.D. &c.*

ELLEN PRINTER, æt. 25, of delicate constitution, who had often miscarried, was visited Sept. 19th, 1828. She had dyspnœa, frequent violent palpitations, orthopnœa, a hard cough, with sometimes bloody expectoration, and œdema of the feet. The contractions of the ventricles were accompanied with a loud and distinct bruit de soufflet, heard all over the anterior part of the chest, on account of the emaciation. She took gentle laxatives, with tincture of digitalis. On the next day the palpitation was very violent, and its impulse observed to be strong-

* Dublin Transactions, Vol. I. Part I.

est between the third and fourth cartilages of the left side. Percussion gave a dull sound in the region of the heart. The right arm was affected with severe pain from the shoulder to the tips of the fingers, and she stated that, four months previously, she had been affected with paralysis of the right side. On the 24th, she was easier. The heart's action was very irregular, the ventricular stroke very long, that of the auricles hardly distinguished, and followed by an intermission equal in duration to both. On the 25th, the pulse was 100, the beat of the heart very irregular. First there were two or three strokes with a long intermission between them, and then an equal or a greater number in rapid succession. The expectoration was less bloody, the respiration puerile under the left clavicle; the edge of the liver was felt below the navel. By the 2d Oct. the legs were swelled up to the knees; the impulse of the heart was less, the noise loud and peculiar, that of the ventricles resembling the rolling of a cart, and the pronunciation of the word *thürla* conveying some idea of it. There was sibilous rattle in the chest. On the 8th, she was much worse, on the 10th and 11th, the respiration was heard only at the upper part of the chest, the dyspnœa increased, and at 9, p. m. she died.

Sectio Cadaveris. The liver was much enlarged and very hard, its external surface appearing as if minute grains of sand were closely imbedded in it. The right lung adhered to the pleura costalis; there was no water in either pleural cavity. In the pericardium was upwards of a quart of greenish-yellow transparent fluid, with a very few flakes of soft lymph floating through it. The heart, especially the curricular portion, was distended by a quantity of clotted blood. The mitral valves were completely ossified, projecting towards each other, so as actually to meet in part of their length, and form in the remainder a mere chink, not large enough to admit the handle of a scalpel. The edges of the valves were very irregular, nodulated, and thickened; there was much ossification under the lining membrane of the parts in their vicinity; and the columnæ and carneæ chordæ tendineæ were thicker and stronger than natural. The auricle was thickened in its parietes, and much dilated in its cavity. The ventricle was rather thinner than natural. The aortic valves were imperfectly osssified, but considerably thickened, and standing up so as nearly to close the passage into the vessel.

There were two or three minute points of ossification in the aorta, about an inch from the heart. The tricuspid valves were thickened and imperfectly ossified, and stood up a little from the sides of the ventricle. The right ventricle and the valves of the pulmonary artery were healthy; the right auricle was thickened and enlarged, but not so much as the left. The lungs were not cut into, but externally they appeared sound.

This case is of interest in connexion with other instances of contraction of the left auriculo-ventricular opening with which we have presented our readers on former occasions. Our author makes a number of remarks on this and some other cases, but the following are all that we need notice.

"With respect to treatment, that which I have found most beneficial was the administration under different forms, of digitalis purpurea. In the advanced stages of the disease, in which alone I have had an opportunity of employing it, bloodletting afforded only temporary relief, and in some instances, it seemed to hurry on the fatal termination. However, I have no doubt, that when employed in due season, it may, in conjunction with proper regimen, prove a most valuable remedy. It may either retard the progress of the primary disease, or prevent its most fatal consequences. Thus it may prevent apoplexy in cases of hypertrophy of the left ventricle; and in all cases it may remove inflammation of the serous membranes, and thereby prevent effusion into their cavities. With a view to prevent the latter accident, it is obvious, that exposure to cold ought to be carefully avoided by those who are affected with disease of the heart.

The following case is an instance of the

utility of digitalis, combined with calomel, in treating the advanced stages of the disease.

Anne Moor, had cough accompanied by a copious expectoration of mucus tinged with blood, orthopnœa, violent palpitation, pulse 160 and irregular, œdema of the lower extremities, fulness of the right hypochondrium, and no sleep. She took a pill composed of calomel and digitalis three times a day, until it produced ptyalism. In a short time the expectoration ceased, the swelling of the legs was removed, the palpitation diminished, the pulse, which was still irregular, was reduced to 100; she was able to lie down in the horizontal position, and sometimes enjoyed a sleep of five or six hours duration. In the course of this woman's illness, the same treatment was several times repeated, and with similar good effects.

On examination after death, there were found ossification of the mitral and aortic valves, adhesion of both lungs to the pleura costalis, and dropsy of both sides of the chest and of the pericardium. This woman had been bled for inflammation of the lungs, about three months before she became my patient.

XXII.

CONGENITAL INCONTINENCE OF URINE.

Dr. OTTO, of Pennsylvania, has published some cases of this kind in our NORTH AMERICAN cotemporary of October last, which we shall here notice.

Case 1.—This was a boy, ten years of age, who had been afflicted with incontinence of urine from his birth, and for which no remedies had been tried. The Doctor ordered a strong infusion of uva ursi to be made (an ounce to the pint of water) and a wine-glassful to be taken four times a-day. He was also directed to take 15 drops of the muriated tincture of iron thrice daily. The boy improved rapidly under this treatment, and got entirely free from his loathsome ailment.

Case 2.—This was a lad, 12 years of age, who was in the habit of wetting his bed about once a week. He had frequent desire to make water, and discharged but little at a time. If he finds not a convenient place, he sometimes is forced to pass water, even in the day, among his clothes. The same remedies as are above detailed were ordered. His complaint fluctuated, but, upon the whole, he improved. A large blister was applied to the sacrum, with some additional benefit. The tartar emetic ointment was next applied. Still a cure was not effected. The upland sumach (rhus glabrum) was substituted for the uva ursi, and oil of turpentine was given twice a-day. By these means he so far recovered, that he was discharged from a charitable institution, and was bound apprentice to a trade.

Case 3.—This was a young female, aged 9 years, residing in the same institution with the preceding patient for three years, and has all that time been liable to incontinence of urine, which has probably continued since birth. She seldom misses wetting her bed a single night. She makes water frequently in the day, but not involuntarily, except when frightened, when she is quite unable to retain it. She was directed to take a wine-glassful of the decoction of the uva ursi, and five drops of the muriated tincture of iron as often. No improvement taking place, the drops were increased to ten, after which she mended rapidly, and did not wet her bed for several months.

Two or three other cases, nearly similar, are detailed by our author; but the above are sufficient.

XXIII.

LITHOTRITY.

Mr. COSTELLO read a paper at the Westminister Medical Society, a few evenings ago, on the subject of lithotrity, and produced a very excellent example of the good effects of this operation—namely, a patient turned of 60 years of age, who had been cut

in the usual way, some years ago, by Mr. Attenburrow, of Nottingham, but who afterwards became the subject of calculus, and was reduced to the lowest ebb of misery and suffering by the tortures which the stone occasioned. When this man (who was a respectable farmer) arrived in London, he was so broken down in health, that Mr. Costello was afraid to operate; but by tranquillizing the bladder by means of opiate injections, &c. the patient was brought into a more favourable condition, and in three sittings a large stone was perforated, crushed, and discharged. The patient appeared at the Society in perfect health, though the last operation had been performed only a few days previously. He did the operator great credit. Mr. Costello exhibited the instrument used on this occasion, and answered very candidly a number of questions asked by different members of the Society. Mr. C. being a countrymen of our own, ought to be encouraged by the profession of these realms.

XXIV.

NAVAL SURGEONS.

To the Members of the Royal College of Surgeons in London.

GENTLEMEN,—In obedience to your resolution of the 8th inst. we have this day waited on his Grace the Duke of Devonshire on the subject of the exclusion of the surgeons and assistant-surgeons of the navy from his Majesty's levees. His Grace said he had great pleasure in being able to authorise us to communicate to you the following answer:—"That his Majesty entertained the kindest feelings towards the surgeons and assistant-surgeons of his navy, that the order complained of was rescinded, and that in future those officers would be admitted to the levees through the Lords of the Admiralty." Offering you our warmest congratulations on this result, we have the honour to remain, your obedient servants,

GEORGE WALKER.
THOMAS KING.

209, Piccadilly, March 17, 1831.

XXV.

IMPORTANT TO SURGEONS.

Home Circuit, Maidstone, March 18.
(Before Mr. Baron Bayley and a Special Jury.)

THE APOTHECARIES' COMPANY v. RYAN.

This was an action brought by the Master and Wardens of the Apothecaries' Company to recover a certain penalty, fixed by Act of Parliament, from the defendant, alleged to have been incurred by him for practising as an apothecary without a license from the Apothecaries' Company. This case is exceedingly important, as there is no instance on record in which the Apothecaries' Company have tried this question with a Member of the College of Surgeons.

Mr. Gurney, with whom was Mr. Thessager, in stating the plaintiff's case, observed that by the 55 Geo. III, it was enacted that any person practising as an apothecary, not having a licence from the Apothecaries' Company was liable to a penalty of 20*l*. The defendant is a surgeon practising at Farningham, and has been in the habit of attending patients, and compounding medicines, not holding a license from the Company, although a Member of the College of Surgeons. Several witnesses whom Mr. Ryan had subpœnaed were called, and considerable laughter was created in the Court by the different questions which were put to distinguish between what were medical and what surgical cases.

Mr. Platt, with whom was Mr. Clarkson, in a very luminous speech, submitted to the Jury that the defendant, as a Member of the Royal College of Surgeons, possessed the right, both by law and usage, to furnish medicine in both surgical and medical cases. All the cases, however, in which the defendant was engaged, were *de facto*, surgical cases, although he admitted it might have been necessary to have given medicines; yet ultimately the patient must have had recourse to his services as a surgeon. The defendant had never sent in any bill as an apothecary, and had never made up any physician's prescriptions. It was quite

absurd to suppose that a surgeon could exercise his calling without prescribing medicines, or rather, without preparing the patient for the services of the surgeon. The learned counsel, in conclusion, contended that the Statute of the 32d of Hen. VIII. which empowered physicians to vend medicines, also included surgeons, surgery being a special member and part of physic.

Mr. Baron Bayley left it to the Jury to say whether the cases proved were cases of pure surgery or not. The distinctions between the different modes of practising was originally this:—The physicians advised, the apothecary mixed up the medicine, and the surgeons performed the operations. It seemed to him that the Act which had been referred to contemplate the advice and making up medicine to be the practice of an apothecary. There was a great distinction between a surgical case and one in which a surgical operation might become necessary.

Mr. Baron Bayley—in answer to a question by the Jury.—I think the words of the Charter confine the practice to external diseases.

The Jury then said that, under the direction of his lordship as to the Charter, they found it their duty to find for the plaintiffs, because there was no external injury in the first instance. Verdict for the plaintiffs.

The learned Judge SUMMED UP DECIDEDLY IN FAVOUR OF THE APOTHECARIES' COMPANY, AND LAID DOWN the law in such a manner, that the Jury were compelled, as it were, to return a verdict for the defendant. The Judge declared that in his opinion two of the cases, water in the chest, and inflammation of the liver, were decidedly medical, and that therefore the defendant had practised as an apothecary. The Judge further said that, in his opinion, the law laid it down that no surgeon could legally make up and send out medicines, excepting such cases as were mentioned in the Charter of Charles II, which exclusively relate to external diseases.

XXVI.

MR. HAWKINS ON THE GUACO.

THE following letter, which appeared in the Medical Gazette, is deserving of attention. As it is short, our readers will excuse us for inserting it entire from our contemporary.

"*To the Editor of the London Medical Gazette.*

SIR,

In the Medical Gazette, vol. vi. p. 507, there is a short notice of a paper which was read at the College of Physicians, containing an account of some experiments, which I had been enabled to make through the kindness of the president with the 'mikania guaco,' a plant which is said by the inhabitants of South America, and some of the West India islands, to prevent or cure the bites of poisonous serpents, and rabid dogs. The quantity which I possessed was not sufficient to invcstigate the subject completely, but I ascertained that it did not *prevent* poisonous serpents from biting animals which were under the influence of the reputed preservative, nor did it seem to do more than mitigate the symptoms of rabies or hydrophobia; it did not seem to retard the fatal result either in man or the dog. Still, however, the belief in the efficacy of the medicine is so strong—it is so widely diffused—and has continued so long, that although I am inclined to think the accounts we have received are much exaggerated, it is well deserving of further trial, as even palliation of the frightful symptoms of dydrophobia is yet a desideratum. On this account I avail myself of your journal to inform the members of your profession that I am in possession of some more of the plant, which has been sent to me by Sir Robert Kerr Porter, from the Caraccas, some of which I shall be happy to give to any medical man in London, or its neighbourhood, who meets with a case of hydrophobia, in order that its virtues may be again put to the test.

It might appear superfluous, perhaps,

to allude to the necessity of accurately distinguishing hydrophobia from other diseases; and yet it is singular to what an extent the apprehensions of the public have been erroneously led with regard to the prevalence of this disease. During the last, year, rabies was particularly prevalent among dogs, and the newspapers were constantly full of accounts of mad dogs and cases of hydrophobia, and yet when a return was ordered by the House of Commons of the number of cases which had occurred in the preceeding year in all the metropolitan hospitals, it appeared that the instance which I alluded to in my paper, in which the guaco had been tried, was the only one which had been admitted into them. One case, which had been detailed most circumstantially and frequently by the daily press, was that of a poor man, who had died, as I learned, from the physician who attended him, of delirium tremens from drunkenness; nor were these mistakes made only by the public, but unfortunately some medical men have themselves contributed to encourage the popular fears by their ignorance of the disease: one gentleman, for instance, in giving his evidence at a Coroner's Inquest, expressed his opinion that the patient had died of hydrophobia, and the verdict was recorded upon this evidence, the patient having in reality died a *few days* after the receipt of the injury, no doubt (if the report of the evidence was correct) from the irritation of a lacerated wound.

It is not, therefore, so much the frequency of hydrophobia as the extraordinary, and uniformly fatal nature of the complaint, which induces me to request you to give effect to Sir R. K. Porter's humane exertions, by giving publicity to this letter, in order that the medicine may be employed whenever an opportunity occurs.

I am, Sir,
Your obedient servant,
CÆSAR HAWKINS."

XXVII.

LONDON COLLEGE OF MEDICINE.

THE following is the basis on which the new college is proposed to rest; or rather the code of principles by which it is to be governed. The paper only reached us just as this last sheet of the Journal was going to press, and therefore we have no time nor room for comments.

"All medical gentlemen now legally qualified to practise in either branch of the profession shall be deemed eligible candidates for the Diplomas of the LONDON COLLEGE OF MEDICINE.

The possessors of the Diplomas to be denominated FELLOWS, and to be entitled both in and out of the College to the title of DOCTOR.

The College to be governed by a PRESIDENT and COUNCIL, who are to be elected annually by the FELLOWS in general CONVOCATION.

During the *first year* the Diploma from any University or College of Physicians or Surgeons, shall be deemed a sufficient qualification to entitle the Candidate to the Diploma of this College. But the DIPLOMAS of the LONDON COLLEGE of SURGEONS, dated *subsequently* to Tuesday the 8th of March, the day on which the infamous assault was committed on the MEMBERS, *will not be received.*

The examination of Candidates to take place in PUBLIC, and to be conducted by the PRESIDENT, a COURT of EXAMINERS, and a MEDICAL JURY. Each Candidate to be examined on the *dead body*, in *anatomy*, and *surgery.*

Candidates will not be required to produce any CERTIFICATES whatsoever; as COMPETENCY to undergo a fair and searching practical examination, will be considered the only professional QUALIFICATION sufficient for the attainment of the DIPLOMA.

All candidates to undergo a general examination in *Anatomy, Physiology, Pathology,* Surgery, Midwifery, *Practice of Medicine,* Materia Medica, and Chemistry. They will also be required to furnish short translations from the *Greek* and *Latin*, and probably from the *French* and *German* languages.

Whatever may be the determination of Candidates with regard to the line of practice which they may pursue after they have obtained the Diploma,—that is, whether they confine themselves to medicine, surgery, or midwifery,—it will not be admitted by the COURT of EXAMINERS and the JURY that there ought to be any distinction in medical *education*. The FELLOWS will be at liberty to practise in any branch of medical science, but public security will demand that the Candidates display a competent knowledge of the elements of the whole. The sum to be charged for the Diploma will be the lowest that can be named consistent with the maintenance and utility of the College. It is intended that the act of incorporation shall concede to the PRESIDENT, COUNCIL, and FELLOWS of this College, assembled in general convocation, the right to elect the medical officers of the great chartered HOSPITALS; their choice, however, to be subject to the approval of the First Lord of the Treasury; and the authorities of the College to be further empowered to remove such officers in case of incompetence or neglect of duty. A collegiate eleemosynary fund is to be instituted for the support of the widows and orphans of FELLOWS who may be so unfortunate as to leave them unprovided for, and also to render assistance in cases of absolute necessity to any of the FELLOWS themselves, who may be reduced to distress by circumstances over which they may have no control; such claims not to be entertained unless supported by testimonials of high moral character. The eleemosynary collegiate fund to be established and maintained, by life, or annual, contributions from the whole of the FELLOWS; the payments to be regulated by the FELLOWS at the annual collegiate convocation.

XXVIII.

MEDICAL REFORM.

THERE is, in the medical as well as in the political world, a *mouvement*, as the French term it, and which our medical MAGNATES ought not to hold too cheap. We have advocated rational and liberal reform till we are sick of the theme; but our advocacy was of no avail. It will be seen soon that physical force will be called into action, in aid of arguments. We shall quote a short passage which was written nearly two years ago amid the ruins of Rome, while contemplating the brazen wall or impassable gulph placed between the patrician and plebeian orders of society. It was printed long before the "glorious days" of July, as they are called, but it may apply to medical as well as general politics.

"If the *road* be not left open for industry and talent to acquire property and rank, the lower orders must sink into abject pauperism, or ferment into dangerous rebellion. They have taken the *former* channel in most parts of fair Italy—but with the 'march of intellect,' they will probably run the *latter*, and more fearful course in some other parts of the world. If wealth and power accumulate, beyond all reasonable proportion, in one class, and that the least numerous of society, KNOWLEDGE, which is truly said to be POWER, will ultimately impel the larger and destitute class to organize physical force for the destruction of monopoly and the more equal distribution of wealth. This, it is true will be ROBBERY, attended by bloodshed, and all kinds of crimes. But if Providence permit the hurricane to restore the equilibrium of the atmosphere, while it sweeps whole cities, with all their inhabitants, to destruction, it may sanction the storm of revolution, which subverts the foundations of society, to cure evils that have been growing for ages, fostered by the blind cupidity and the avarice of the human race. The history of the world, and of human nature teaches us that example, or even experience, has little or no influence on man, when his selfish passions are concerned.

He will risk all rather than lose a part. When Cato informed Ptolemy, King of Cyprus, that he might retire, with a certain part of his property, he refused. He went out to sea in a ship, with his treasures, determined to sink himself and them, in one common watery grave. His courage amounted to the destruction of himself; but it could not be wound up to the immersion of his riches in the ocean. He sailed back—deposited his money and jewels in safety for his enemies—and then committed suicide! The application of this historical fact to existing circumstances, is not difficult. Our great depositaries of wealth will not concede to measures that may sacrifice a part to preserve the remainder. They will obstinately retain all, like Ptolemy, till the moment when they must lose all!

"Quem Deus vult perdere prius dementat."

"Hitherto the heads of a few have guided the hands of the many—and one channel of thought has fed and set in motion ten thousand springs of action. Ere long, each brain will think for itself, and plan for the common weal. If, in such case, there be any lack of wisdom, it certainly will not be from want of multiplicity of counsellors! Such a state of things is rapidly approaching—nor can it be prevented, even on this oppressed soil, by the Austrian bayonet or Papal crosier. Human wisdom may do much to mitigate the evil, if it be one, by meeting it half way, and lessening the impetus of the revolution. Obstinacy may render the collision of two extremes most awful and destructive."—*Dr. Johnson's Tour through Italy, &c. p.* 182.

BIBLIOGRAPHICAL RECORD;

Or Works Received for Review since last Quarter.

1. A Manual of Surgery, founded upon the principles and practice lately taught by Sir Astley Cooper, Bart. F.R.S. Sergeant-Surgeon to the King, &c. and Joseph Green, Esq. F.R.S. &c. The Third Edition, considerably enlarged, containing many additional notes from the writings of other distinguished Surgeons. By THOMAS CASTLE, F.L.S. of Queen's College, Oxford, Professor of Materia Medica to the Eclectic Society, &c. One Vol. 12mo. pp. 515. Price 10s. 6d.

☞ *This Edition forms a most valuable vade mecum of Surgery for the student and practitioner.*

2. A Catechism of Phrenology, illustrative of the Principles of that Science. By a Member of the Phrenological Society of Ed. Duodecimo, pp. 72. 1831.

3. A Treatise on Pathological Anatomy. By G. ANDRAL, Professor, &c. translated from the French, by RICHARD TOWNSEND, A.B. M.D. &c. and WILLIAM WEST, A.M. M.D. &c. Volume the Second, (concluding volume) pp. 808. 1831.

☞ *We shall notice various subjects of this important Work, in our Review and Periscope.*

4. A Table of Vegetable Poisons, exhibiting the principal Poisonous Plants, comprising their common English name, Botanic name, the Class, Order, &c.—Poisonous effects and mode of treatment, &c. illustrated by accurate drawings of the principal indigenous plants, including the poisonous mushrooms, &c. By G. SPRATT, Surgeon, &c.

☞ *We had mislaid this very useful table, and beautiful engravings of the vegetable poisons, and hasten to repair the accident by strongly recommending it to the notice of our brethren.*

5. Illustrations of Mr. J. Cooper's Surgical Dictionary, published Monthly, &c. Parts, V. VI. &c.

☞ *This highly useful undertaking maintains its character, and should be in the possession of every one who has (and who has not ?) Mr. Cooper's Work.*

6. Article Surgery. Written for Brewster's Cyclopœdia. By JOHN LIZARS. In 1828. Quarto, bds. pp. 75—3 Plates.

☞ *This is a surprisingly good compendium of Surgery, considering the narrow limits to which the able author was confined.*

7. A System of Operative Surgery, containing a description of the most approved plans of performing the different operations in Surgery on the Dead Body; with Remarks on their Anatomy, Practical Observations: being principally designed for the use of Students in Surgery. By W. HARGRAVE, A.M. M.B. T.C.D. Lecturer on Anatomy and Operative Surgery, &c. 12mo. pp. 533. Dublin, Hodges and Smith, 1831.

☞ *We may notice this useful Work in the body of the Journal.*

8. The Physiology of the Fœtus, Liver, and Spleen. By GEORGE CALVERT HOLLAND, M.D. &c. 8vo. pp. 229, London, 1831.

9. The Companion to Post-Mortem Examinations. Illustrated by Six Plates. Small Octavo, pp. 24. Rose, London, 1831.

10. Medical Zoology; and Mineralogy; or Illustrations and Descriptions of the Animals and Minerals employed in Medicine, and of the Preparations derived from them; comprising their generic and specific characters; English, Provincial, and Foreign appellations; a copious List of Synomimes; Natural History; Physical, Chemical, and Medical Properties and Uses, including also a popular and scientific Account of Animal, Mineral, Atmospheric and Gaseous Poisons; with figures coloured from Nature, &c. By JOHN STEPHENSON, M.D. F.L.S. No. 1. To be continued monthly, price 3s. 6d. John Wilson, London, January 1831.

11. First Principles of Medicine. By ARCHIBALD BILLING, M.D. Fellow of the Royal College of Physicians, &c. 8vo. pp. 131. 1831.

12. A Statistical Report of the Principal Provincial Hospitals in England, computed with reference to the latest Annual Returns of the Respective Institutions. 1830. By the Rev. CHARLES OXENDON, Bishopsbourn, near Canterbury. 5 Sheets, Folio.

☞ *We admire Mr. Oxendon's zeal and industry. He has already incurred fifty pounds expense for gratuitous circulation of his statistical tables; but we advise him to be cautious in calculating on public patronage. These tables would, unquestionably, be very useful; but we doubt whether they will be much attended to by those who are addressed.*

13. The Effects of the Principal Arts, Trades, and Professions, and of Civic States and Habits of Living, on Health and Longevity: with a particular reference to the Trades and Manufactures of Leeds. 1831. By C. TURNER THACKRAH. Octavo, pp. 126.

14. Illustrations of Surgical Anatomy, with explanatory references, founded on the Work of M. Blandin. By JOHN G. M. BURT, Surgeon to the City Dispensary, &c. Edinburgh. No. I. and II.

☞ *This first fasciculus contains two plates of the Surgical Anatomy of the Neck, admirably engraved by the Messrs. Johnstones, of Edinburgh. The second fasciculus contains also two plates, one a Perpendicular Section of the Head and Neck, to shew the relative situations of the Cavities of the Nose, Mouth, Larynx, &c. The other plate delineates beautifully the different parts of the Eye. Each fasciculus is at the moderate expence of 2s. 6d.*

15. Mannal of Operative Surgery, translated from the Third Edition of the French of J. Coster, M.D. By GEORGE FIFE, M.D. Surgeon to the Northern Public Dispensary, &c. Small 8vo. pp. 408. Edinburgh, 1831.

*** *M. Coster's Work is in considerable repute on the Continent. It exhibits in concise language the observations of all the most celebrated French Surgeons, as also the operations of Lisfranc, Dupuytren, Larrey, Roux, Lallemand, Maunoir, Vacca, Civiale, Heurteloup, Le Roy, &c. &c.*

16. Dissertatio Medica Inauguralis de Erysipelate. Auctore JOHANNE COLVAN, Armagh, 1829.

☞ *A learned and ingenious tentamen.*

17. The Report of the Board of Health in Manchester, June, 1830.

18. An Introductory Lecture, Delivered at the Hull General Infirmary, on Friday, November 12th, 1830. By JAMES ALDERSON, M.D. Fellow of the Royal College of Physicians of London, &c. 8vo. pp. 31, with Cuts. 1831.

19. An Introduction to the Study of Human Anatomy. By JAMES PAXTON, Member of the Royal College of Surgeons, and Author of the Illustrations of Paley's Natural Theology. 1 Vol. 8vo. pp. 415, with numerous Wood-cuts. Oxford and London, 1831.

☞ *This is a very interesting publication, and well calculated for the extra-professional but scientific reader.*

20. The Nottingham Dispensary, its Necessity, Origin, and Objects. By THOMAS JOWETT, Surgeon.

21. Professional Morality in 1331; or the Lawyer's Defence of Medical Quackery; in which St. John Long's Discoveries are Examined, and his Claims to the confidence of the British Public are Criticised. By a Graduate of the University of Edinburgh. Second Edition. 8vo. sewed, pp. 86. Wilson, Princes-street, 1831.

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23. A Treatise on the Practice of Medicine, in Two Volumes. By JOHN EBERLE, M.D. &c. Philadelphia, 1830.

☞ *This is a very respectable compilation, infinitely superior to Thomas's Practice of Physic in this country.*

24. Observations on Fumigating, Vapour, and other Baths. By JONATHAN GREEN, Member of the Royal College of Surgeons.

*** *From personal observation, we can testify that Mr. Green's establishment is by far the most complete in London; and as it is carefully superintended by a regular surgeon, it deserves the patronage of the profession and the confidence of the public.*

25. An Address to the Medical Profession upon the Neglect of the Studies of Physiology and Morbid Anatomy. By R. WADE, M.R.C.S. and Lecturer on Morbid Anatomy, &c. 8vo. Sewed, pp. 16. March, 1831.

*** *A strong protest against indifference to the study of pathology.*

26. The Life of John Walker, M.D. late Director of the Royal Jennerian and London Vaccine Institutions. By JOHN EPPS, M.D. Lecturer on Materia Medica and Chemistry—Director of the Royal Jennerian and London Vaccine Institutions, &c. 8vo. pp. 342. March, 1831.

27. Address of Earl Stanhope, President of the Medico-Botanical Society, for the Anniversary Meeting, January, 1831. 8vo. Sewed.

*** *We wish we had a few hundred Earl Stanhopes among our Aristocracy!*

28. Cases of Lithotrity, or Examples of the Stone cured without Incision, &c. By BARON HEURTELOUP, M.D. 8vo. pp. 54. Sewed.

29. On Indigestion and Costiveness, with Hints to both Sexes, &c. By EDWARD JUKES, Surgeon. Small 8vo. pp. 160. March, 1831.

30. The Medical Annual for 1831. By R. REECE, M.D. 8vo. pp. 124. 1831.

*** *This is a popular work, and contains a great variety of intelligence which must render it very popular beyond the limits of the profession.*

31. Change of Air, or the Pursuit of Health; an Autumnal Excursion through France, Switzerland, and Italy, in the Year 1829; with Observations and Reflections on the Moral, Physical, and Medicinal Influence of Travelling-Exercise, Change of Scene, Foreign Skies, and Voluntary Expatriation, in Sickness and in Health. By JAMES JOHNSON, M.D. Physician Extraordinary to the King. Octavo, pp. 300, March, 1831. Price 8s. 6d. bds. Highley and Underwood.

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TO CORRESPONDENTS.

We do not think that the cheap translations of Louis, Andral, Bertin, and some other French authors, suggested by P——h, would pay the expense of publication.

We have not heard any thing of the projected general meeting of the French Medical Corps. General politics are now engrossing them more than medical reform.

The review of Dr. Coombe's work on mental derangement was unavoidably postponed till next number, when it will certainly appear.

The additional observation (10th) on Spasmodic Cholera, came to hand after the others were printed off. The Prophylaxis, however, offers little that is satisfactory in the present state of our knowledge.

Mr. Lizar's observations on Hernia were published in another journal about the time we received them from the author.

The communication of S. respecting the late Dr. Armstrong has come to hand, and we have little doubt but that *his* statement is the more correct version of the election to the Fever Hospital. "There were two candidates, but the feeling of the committee was in favour of Dr. Armstrong. The election was arranged to suit the expected admission of

Dr. A. as a licentiate. The committee met, and waited a considerable time for Dr. A. who, at length, came into the room, and announced that he must withdraw, as he had just been rejected at the College. The whole Committee were surprised and astonished. Considering it hard, however, that Dr. A. should be thus disappointed, and unwilling to accept the other candidate, it was moved and carried that the bye-law, confining the office to fellows and licentiates, should be suspended. By these means the election of Dr. A. was effected."—S.

Dr. Holbrook, of Cheltenham, informs us that the following formula corresponds in sensible properties with a specimen of Long's liniment. R. Plumbi superacet. 1 dr. Acid. acet. fort., Spir. terebinth. aa 1 oz. Misce fiat linimentum. We have no doubt that the Charlatan of Harley-street has several kinds of liniment, though he pretends that one only is necessary for the cure of all diseases.

Mr. Ceeley, of Applesbury, in a letter dated 13th February, 1831, observes as follows, respecting the nitrate of silver. "I have had lately astonishing results from the internal use of nitrate of silver, in several cases of gastric and intestinal derangements of long standing. I am satisfied that the efficacy of this article in such cases, is not sufficiently known to the profession. Scarcely a day passes that I do not prescribe it internally, with the happiest effects."

DR. JOHNSON ON CHANGE OF AIR.

CHANGE of AIR, or the PURSUIT of HEALTH; an Autumnal Excursion through France, Switzerland, and Italy, in the Year 1829; with Observations and Reflections on the Moral, Physical, and Medicinal Influence of Travelling-Exercise, Change of Scene, Foreign Skies, and Voluntary Expatriation, in Sickness and in Health. By JAMES JOHNSON, M.D. Physician Extraordinary to the KING. Octavo, pp. 300, March, 1831. Price 8s. 6d. bds. Highley and Underwood.

CRITICISMS ON THE ABOVE WORK.

"To attempt an analysis of a work embracing such a treasure of anecdote and instruction would be worse than an idle task; we must therefore content ourselves with observing that, of all the popular tours, of which British literature has been recently so prolific, this is immeasurably the best, whether we consider it in point of style or details. There is no class of general readers which may not derive pleasure and profit from its perusal; while to the physician it will prove very useful, whether as to his guidance in the selection of suitable residences, or routes for patients seeking the renovation of health—or as to the history of those diseases which the malarious atmosphere of Italy, or the Alpine blasts of Switzerland too frequently induce."—*Ballot, 27th Feb.* 1831.

"Dr. Johnson's book contains much curious information on the subject of CHANGE of AIR, and on the causes of ill health in cities. To the justice of his observations experience will enable every reader of mature judgment to subscribe. His recommendations appear to be very judicious."—*Sunday Times, 27th Feb.* 1831.

"The author spent a few months in skimming lightly over France and Switzerland, dwelling with industrious detail on Italy, and its myriad sources of curiosity and interest. The Doctor does not pretend to paint externals. He travels *en philosophe*, and has attended more to the *morale* than the *physique* of what he sees. He is, however, a vigorous independent thinker, while his opinions are slightly tinctured with cynicism, which gives them an agreeable relish. His style is clear, bold, and expressive; so that when he least appears to aim at effect, he leaves a more vivid impression on us of the object of his reflections, than others would by an elaborate description. His ponderings over the ruins of empires, notwithstanding the lucubrations of all who have pondered on the same subject, are generally both instructive and amusing—never tiresome ut there is no part of his book which possesses more interest, though of a painful kin than where he describes the deadly effects of that perpetual scourge, not only of the most barren, but of the most lovely and fertile portions of the garden of the world—MALARIA. The Doctor deserves credit also for the forbearance of his single volume."—*Morning Herald, 16th March.*

"The author, out of his abundant stock of reflection and knowledge, has constructed a volume with which all classes will be pleased—some for its amusing qualities—others for its really useful information—and a still larger class for its combination of both."—*Atlas, March 20th,* 1831.

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